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A STUDY IN THE ECONOMIC CONDITION OF ANCIENT INDIA

(Thesis approved for the Degree of Doctor of Science
(Economics) in the University of London)

BY

Dr. PRAN NATH

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Professor of Economics, Hindu University, Benares; and
author of *Tausch und Geld in Altindien*; *Rāṣṭriya-āya-
vyaya śāstra*; *Mudrā-śāstra*; *Kautiliya-artha-śāstra* (Hindi
translation); etc.

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Dedicated

to

C. E. A. W. OLDHAM, C.S.I., I.C.S. (Retired),

with happy recollections of hours

spent in his company.

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A Study in the Economic Condition of Ancient India

INTRODUCTION

THERE are many problems relating to the study of the economic conditions of ancient India which have not been adequately dealt with by any writers on the subject. For example, to what extent were the conditions of the country under its Hindu rulers reflected in India under Muhammadan sway? Is there any evidence to suggest that some kind of survey of the culturable lands had been made under the ancient Hindu régime? Can any relation be discovered between the records of that period and the revenue records of Akbar's time as contained in the *Ā'in-i-Akbarī*? Can we trace any analogy between the ancient territorial divisions and those in use under Muhammadan rule? or in the system of maintaining local police stations for the protection of the country and the arrest of criminals? or in the weights and measures employed, or in the coinage in use? Do the figures indicating the strength of the fighting forces available from different parts of the country in the two periods assist us to draw any comparisons?

Side by side with these questions, other subjects of inquiry call for full and impartial investigation. What was the form of the political and administrative organization in ancient India? Was India, or any part thereof, under a democratic or republican system of government, or did the conditions resemble more the feudal organization of mediaeval Europe? What were the relations between the rulers and the landowners, and between the landowners and their tenants? What was the social status of the ruling classes, and of the labouring orders? What, again, was the economic condition of the lower grades of society? Was the standard of living of the labouring classes high or low? And to form any definite

opinion on this question it is essential first of all to ascertain the rates of wages paid and the prices of the common foodstuffs.

It is with the above problems that I seek to deal in the present thesis. In the sections treating of the territorial divisions, the population and weights and measures evidence is disclosed that tends to show that the record presented by Abu'l-Fazl in his *Āin-i-Akbarī* was based to some extent at least on records that had also been maintained in the Hindu period. The statistics given in respect of the numbers of *mahāls* or *parganas*, the information supplied as to the number of troops on the muster-roll, and as to weights, measures and coins bear a remarkably close resemblance to the facts and figures revealed by my investigations into the conditions of the Hindu period, a resemblance that cannot reasonably be ascribed to chance.

In Chapter VI, I have sought to show what were the actual position and powers of the aristocratic classes and their relations with the rulers of their countries; and, if the interpretation of certain terms therein suggested be accepted, it will be seen that the social and administrative organization in ancient India was similar in more respects than one to the feudal system of mediaeval Europe, and resembled that in old Rajputana as described by Tod, and that of the Chamba State as recorded by Dr. Vogel. In Chapter V, I have tried to frame from the only data that seem to afford a possible clue a rough estimate of the total population of the eighty-four countries (*deśa*) comprised in ancient India.

Chapters III and IV are devoted to a study of the weights, measures, and coinage, the rate of interest and the prices of foodstuffs and other things, as ascertainable from the ancient literature and the inscriptions available up to date. In Chapter VII the same sources have been minutely examined to discover what were the wages of labour, and what the standard of living of the labouring classes in those early days.

In the course of these inquiries it has been necessary to consider several important statements and statistical

figures, some of which had been rejected by scholars on the ground of "Oriental exaggeration", or on other grounds had been interpreted in some novel way. For instance, there are the figures recorded by Hiuan Tsang under the term translated hitherto as "circuit". My first aim was to try and find the source from which he had derived his information, and, next, to decide what was the most reasonable interpretation to be placed upon them. If my solution be accepted, the figures recorded by the traveller can be reconciled with other information that has been handed down to us; and they would go to show, moreover, that only about half of the total area of India had by that time been surveyed, the remainder probably consisting of hills, forest and jungle not yet fully explored. In this connexion I have been able to show from Samskr̥ta sources that the correct number of countries (*deśa*) comprised in ancient India was eighty-four. Hiuan Tsang had given descriptions of eighty-two countries, while Sir A. Cunningham had sought to reduce this number still further. Attention is then directed to further details contained in the old Hindu records, leading to a new interpretation of the word *grāma*, so constantly used in the ancient writings and in the epigraphical records. In the Southern Indian inscriptions some figures are given which had been interpreted as meaning the numbers of towns or villages within certain areas. I have shown that the word *grāma* or other synonymous term used in those records does not mean village, town, or city, but an estate, or a 'survey village', or *mauza*. I believe this to be the first time that such an interpretation has been assigned to the word *grāma*. I have quoted passages from Samskr̥ta works which record in some instances the same numbers of *grāmas* as given in the inscriptions; and I have cited references which disclose that Muhammadan writers have also recorded corresponding figures.

Attention has next been devoted (Chapter II) to the smaller territorial divisions, known as *janapada*, *gaṇa*, and

gulma, and their administration. With the aid of passages from the Purāṇas I have calculated approximately the average area of a *janapada* and of a *gaṇa* or a *maṇḍala*, and of a city proper and of the larger area, including suburbs, which I call a 'city-jurisdiction'. As a result of these researches, it has been found possible to give a reasonable interpretation to certain passages in the *jātakas*, in which the "circuit" of some *janapadas* has been stated, and so overcome the objections raised by Dr. Fleet as to the reliability of these records. At the same time another fact of great importance was discovered, namely that the number of *gaṇas* closely corresponded to the number of *mahāls* or *parganas* recorded in the *Āin-i-Akbarī*. In the *Kāmandakīya-nīti-sūtra* different sources of revenue are classified under *vargas*, a term meaning 'classes' or 'groups'; while in the *Āin-i-Akbarī* the term *mahāl* is used in the same sense. A careful study of the use of these expressions has enabled me to elucidate the confusion between the numbers of *mahāls* and *parganas*. I have further suggested that the word *sthāna* used in the *Artha-śāstra* of Kauṭilya should be understood in the technical sense of 'police station', a sense in which it is still employed at the present day under the form *thānā*. This interpretation has rendered intelligible the character of the people called *cāṭas* (or *cāras*) and *bhaṭas* in the inscriptions. They appear to have been half soldiers, half police, stationed at the *sthānas* for the protection of the countryside against thieves and criminals, and to assist the revenue collectors in enforcing payment of the government dues. The description of an ancient *thānā* quoted from the *Praśna-vyākaraṇāṅga-sūtra* will be a revelation to such as may desire to trace the origin and development of the modern police-station.

After investigating these aspects of the administration I have endeavoured to find out the real status and powers of the ruling classes (Chapter VI) who owned estates (*grāmas*), and were called *sāmanta*, *rājānaka*, *rājan*, *rājaputra*, *bhoja*,

rāya, *gaṇarāya*, *gaṇa*, *amātya*, *grāmaṇī*, *rāṇṇa*, *rāṇā*, etc. Hitherto the *sāmanta* of the *Artha-śāstra* of Kauṭalya and the *rājan* of other Samskr̥ta literature has constantly been translated as 'king'. The interpretation of these terms proposed by me, if established, will involve a fundamental change in hitherto accepted views. The rules which have so far been understood as dealing with the king and his subjects refer, according to my interpretation, to the relations between the estate-owners and his tenants, and others living on their estates. Thus the taxes relating to pasture and cattle, etc., and the privilege of free labour, must be regarded as having been realized and enjoyed by the estate-owners, who in their turn were obliged to pay from one-fourth to one-sixth of their income to their suzerain and, in some cases, the amount fixed by old agreements (*saṃdhi*). As a result of my inquiries it would seem that the *saṃdhis* (agreements) described in the *Artha-śāstra* of Kauṭalya and the *Kāmandakīya-nīti-sāra* should be understood as agreements between the estate-owners and their suzerain, and not as treaties between independent kings. This interpretation, if accepted, will shed a light on the question of the proprietary rights in land in ancient India and at the same time furnish a basis for further research, as, for example, into the history of the dues and imposts realized from the tenants and sub-tenants by the landowners at the present day. (In Oudh these dues, according to my inquiries, number some 150. See Chapter VII, p. 161, note 2.) The militia employed by estate-owners were called *pāyikas* in the time of Dr. Francis Buchanan; and he was quite right in understanding this to be an old organization. The passage on the subject of *pāikkas* quoted by me from the *Prāśna-vyākaraṇāṅga-sūtra* will show that the institution was already in existence about the beginning of the Christian era. The employment of *pāikkas* for the purpose of oppression and plunder shows the power of estate-owners in those days. Hitherto the *adhyakṣa* of Kauṭalya has been interpreted as meaning a 'superintendent' of a public department; e.g.

Śītādhyakṣa, as superintendent of agriculture; *Godhyakṣa*, as superintendent of cows, etc. For the first time I believe this interpretation has been disputed. They appear to me to have been overseers of the crown lands, and of the king's cattle, etc. The word *janapada* has been translated by Dr. Śyāmasāstrin as 'kingdom'. The interpretation given by me to this word has an important influence in lowering the status of these overseers. According to my interpretation the territorial division called *janapada* was ordinarily only about ten square *yojanas* in area. The duties of *adhyakṣas* were confined therefore to this area. Their work was comparatively light, so they were paid each 1,000 *panas* a month. The pay of the higher officers who administered the whole *janapada*, like the *samāhartṛ*, etc., was far higher. The management of large estates in the time of Dr. Buchanan bears some resemblance to the management prescribed by Kautalya in respect of the king's property. The general conclusion drawn by me from my investigations is that ancient India was similar in many aspects of its social organization to feudal Europe of the mediaeval ages. There is no doubt these estate-owners were often united under a federation called *gaṇa*, interpreted by some writers as meaning a republic. But a combination of feudal chiefs for a particular period or for a special purpose is a different thing from a republican system of government.

The comparison with feudal Europe led on to the subject of military service, and I have been tempted to frame an estimate of the total war-strength of the country from the data supplied in the description of the great war in the *Mahābhārata*, the Greek accounts of Alexander's campaigns in the Panjab and the statistics contained in the *Āīn-i-Akbarī*. The resultant figures, as will be seen, correspond in a remarkable manner. It would appear that the head of each *sāmanta* family in ancient India was expected to join the army of his suzerain in person, or, in case of inability, to provide a substitute, or in other words that each estate (*grāma*) furnished at

least one fighting man in time of war. Having calculated the approximate total number of *grāmas* in the whole of India from such material as is available for the purpose, I have upon this and other bases attempted to give a rough estimate of the total population. This is the first occasion on which such estimates of total population and fighting strength have been suggested.

Much labour has been devoted to the investigation of the economic condition of the working classes. For this two essential factors had first to be determined, namely (1) the rates of wages, and (2) the prices of the ordinary food-stuffs at the time. The difficulties attending such inquiry are so great that they have hitherto deterred scholars from attempting it. In the Southern Indian inscriptions wages and prices have been recorded sometimes in weights of paddy and sometimes in coins named *kalañju*, *kāśu*, and *akka*. The chief difficulty perhaps lay in ascertaining the value of the *akka*. Assuming this coin at first to be equivalent to a copper *pana*, I found this would involve the conclusion that wages and prices had remained practically stationary between the era, say, of the early Guptas and the eleventh century A.D., a conclusion which on the face of it was improbable, and conflicted with other evidence. Moreover, the adoption of this value would mean that the *kalañju* would represent a gold *māṣaka* of about 7·2 grains, which raised further difficulties in respect of the *mañjādi* and *kunṛī*. The prices recorded for jewellery necessitated taking the *akka* to have been a gold *pana*, or *fanam* as it was called in Southern India. On this basis it was found that the rise in prices between the period of Kauṭalya and the eleventh century A.D. would be about seven-fold, which is perhaps not excessive, having regard to the vast changes that had taken place in the conditions of the continent during the intervening period. It is possible that the old copper *pana* was ultimately converted into a gold *pana* or *fanam*, to correspond with the rise that had occurred in prices; and thus the fines recorded in the old

law-books in copper *paṇas* would become adjusted to the changed economic conditions. Whether this be the correct explanation of the origin of the gold *fanam* or not, there can be little or no doubt that prices did rise to this extent. We may fairly assume that in very ancient times prices would alter slowly, as economic conditions were then comparatively stationary. When the continent became extensively convulsed by inroads and invasions from the north-west and west, economic conditions would alter with great rapidity. The economic data ascertainable from the *Artha-śāstra* of Kauṭalya may thus be of considerable value in helping to assign a date to the work as it has come down to us. The considerations here indicated may fairly, I think, be regarded as pointing to an early date, perhaps not later than the times of the early Gupta sovereigns. And in this connexion I should note that for the purposes of this thesis I have used the expression "Early Hindu Period" as referring to the period in which the *Artha-śāstra* of Kauṭalya was compiled.

After disposing of the difficulties encountered in connexion with the coins and weights given in the old inscriptions an attempt was next made to ascertain the rates of wages and the prices of foodstuffs, etc. In this inquiry I have derived most valuable help from the records of wages in the Nepāl inscriptions published by Professor Sylvain Lévi. These have been collated by me, and from them I have compiled a very interesting table. Although doubt has been felt as to the value of these records, I am now thoroughly satisfied that they are reliable, and embody valuable information. The Southern Indian table of wages has been compiled with great care from all the hitherto published inscriptions. Similar pains have been taken in the preparation of the table of prices. A very rare, and as yet unpublished, manuscript on prices, attributed to Kātyāyana, has also been appended. The determination of the rates of wages and the prices of food-stuffs has shed a flood of light upon the contemporary economic conditions of the working classes.

Economics is a very wide subject; to deal with the economics of ancient India in all branches would be a life-long task. Only a few aspects of the subject can be considered here. Having taken the *grāma* as a starting point, I have tried to collect all material concerning it. Understanding this term to mean an estate or a fiscal village, itself a part of a larger fiscal division called *janapada*, I was led to inquire into the management thereof from the point of view of revenue administration, and into the political and economic position of the owners of these *grāmas* and of the people living thereon. These subjects are dealt with in Chapters I, II, V, VI, and VII. The treatment of the subjects of wages and the standard of living in Chapter VII called for consideration of the prices of food-stuffs and other necessities, as well as of the modern equivalents of ancient Indian weights, measures, and coins, which are dealt with in Chapters III and IV.

In this thesis, it should be noted further, I have confined myself to evidence which hitherto has either not been noticed, or else not adequately appreciated; and I have suggested a number of new and original interpretations on questions that have already been raised. I have intentionally avoided any unacknowledged repetition of facts that have already been satisfactorily established by others.

Important information has been gleaned from a source, the value of which will be increasingly appreciated as it comes to be better known, namely the Jain literature, which has been extensively and carefully perused in the course of my researches. The whole of the published Southern Indian inscriptions and all the volumes of the *Epigraphia Indica* have been examined and studied. Besides the Samskr̥ta literature in all its important branches, a special study has been made of Kauṭalya's *Artha-śāstra* in the Samskr̥ta text. For the Muhammadan period the standard authorities have been consulted, and in particular I should like to express my obligation to Mr. W. H. Moreland's two valuable works

dealing with the period from Akbar to Aurangzeb. The records of the early statistical surveys made under the auspices of the British Government have also been examined.

The author feels deeply indebted to Professor T. E. Gregory, under whose guidance he carried on his research work, and to Dr. F. W. Thomas, C.I.E., who advised him from time to time, suggested many new points and assisted him in revising the thesis for the press. He desires to express his warm thanks to Professor R. L. Turner for so very kindly reading through the proofs and revising the Samskrta passages.

CHAPTER I

TERRITORIAL DIVISIONS IN ANCIENT INDIA

- I. REGIONS AND COUNTRIES
- II. SMALLER TERRITORIAL DIVISIONS: THEIR NAMES
AND MEANINGS
- III. SMALLER TERRITORIAL DIVISIONS: THEIR NUMBER
AND SIZE



CHAPTER I

TERRITORIAL DIVISIONS IN ANCIENT INDIA

I. REGIONS AND COUNTRIES

THERE are many problems connected with the territorial divisions of ancient India. Among them two are very important, viz. (1) the numbers and dimensions of Indian countries as given by Hiuan Tsang and (2) the numerical designations found in inscriptions, qualifying the names of countries and of territorial divisions, which have been interpreted as meaning the numbers of "villages, towns, and cities" comprised therein. "We are familiar with the fact," says Dr. J. F. Fleet in his article on the Dimensions of Indian Cities and Countries (*JRAS.*, vol. xxxix, 1907, p. 641), "that Hiuen Tsiang has usually, if not quite always, indicated the dimensions of the various countries described by him. He has done so by stating sometimes the length and breadth, sometimes the circuit. For instance, he has told us that Kan-t'o-lo, Gandhāra—the capital of which was Pu-lu-sha-pu-lo, Purushapura, Peshawar—measured about 1,000 *li* = 121·21 miles from east to west, and 800 *li* = 96·96 miles from south to north (Julien, *Mémoires*, i, 104). So, again, he has told us that the Cheh-ka, Takka, country—the old capital of which was She-ka-lo, Sākala, Sialkot—had a circuit of about 10,000 *li* = 1212·12 miles (*ibid.*, 189). And he has usually indicated in a similar manner the dimensions of the capital cities; thus, he has told us that Pu-lu-sha-pu-lo and She-ka-lo had circumferences of about 40 *li* and 20 *li* = 4·84 and 2·42 miles respectively. Whence did Hiuen Tsiang obtain these details? Was it from official records, or from the Buddhist books, or from what other source?"

He may have obtained the figures either from the official records or from the people on the spot. Other details of a topographical character given in his narrative are

found to have been so carefully and accurately recorded that it seems unreasonable to suppose that he should have been careless in respect of the territorial divisions and their dimensions; and we should rather seek to discover whether the correct interpretation of his figures has hitherto been given. If we could ascertain the source from which they were obtained, it might be possible to explain their meaning, and so remove the difficulties which scholars have found in reconciling them with known facts.

It appears, so far as my investigations have gone, that, at least from the seventh century to the eleventh century A.D., ancient India was divided into five regions and eighty-four countries (*deśa*).¹ These five regions consisted of (1) Northern India (Uttarāpatha), (2) Western India (Pascād-deśa), (3) Central India (Madhya-deśa), (4) Eastern India (Pūrva-deśa), and (5) Southern India (Dakṣiṇāpatha).² On account of this five-fold division the Chinese traveller Hiuan Tsang, who travelled through India in the seventh century A.D., called it by the name of the "Five Indies".

Northern India comprised the Panjab, Kashmir, and Eastern Afghanistan, and included twenty-one kingdoms, namely (1) Śāka, (2) Kekaya, (3) Vokkāṇa, (4) Hūṇa, (5) Vāṇāyuja, (6) Kāmboja, (7) Vāhlika, (8) Vahlava, (9) Lampāka, (10) Kulūta, (11) Kīra, (12) Taṅgaṇa, (13) Tuṣāra, (14) Turuṣka, (15) Barbara, (16) Harahūva, (17) Hūhuka, (18) Saḥuḍa, (19) Haṃsa-mārga, (20) Ramaṭha, and (21) Karakaṇṭha. Perhaps the Sarasvatī river may have been the boundary between Northern and Central India.

Western India comprised Western Rajputana, Sindh, Kacch and Gujarat, and contained ten kingdoms, namely

¹ Caturāśītir deśāḥ. Gauḍa-Kanyakubja-Kaullāka-Kaliṅgāṅga-Vaṅga-Kuraṅgaçālyā-Kāmākṣa-Odra . . . Ābhīra - Narmadātāṭa - dvīpa - deśās ceti (*Kāvya-sikṣa*, by Vinayacandra, quoted in the *Kāvya-mīmāṃsā*, by C. D. Dalal in his note on page 24.)

² Prthūdakāt parataḥ uttarāpathaḥ . . . Devasabhāyāḥ parataḥ pūrvadeśaḥ . . . Tatra Vārāṇasyāḥ parataḥ pūrvadeśaḥ . . . Māhiṣmatyāḥ parato dakṣiṇā-pathaḥ . . . (*Kāvya-mīmāṃsā*, p. 94.)

(1) Deva-sabhā, (2) Surāṣṭra, (3) Daśeraka, (4) Travāṇa, (5) Bhṛgukaccha, (6) Kacchīya, (7) Ānarta, (8) Arbuda, (9) Brāhmaṇavāha, and (10) Yavana. The Narmadā river on the south, the Devasabhā on the east, the Sarasvatī river on the north and the sea-coast on the west were the boundaries of Western India.

Eastern India comprised the modern Bihar, Bengal, Assam, and Orissa, and the ancient Kalinga-rāṣṭra. It included sixteen kingdoms, namely (1) Aṅga, (2) Kalinga, (3) Kosala, (4) Tosala, (5) Utkala, (6) Magadha, (7) Mudgara, (8) Videha, (9) Nepāla, (10) Puṇḍra, (11) Prāgjyotiṣa, (12) Tāmaliptaka, (13) Malada, (14) Mallavartaka, (15) Suhma, and (16) Brah-mottara.

Southern India comprised the whole of the country from Kalinga to Koṅkaṇa and from the Narmadā to Ceylon, and included twenty-one kingdoms, namely (1) Mahārāṣṭra, (2) Māhiśaka, (3) Āśmaka, (4) Vidarbha, (5) Kuntala, (6) Kratha-kaiśika, (7) Śūrpāraka, (8) Kāñci, (9) Kerala, (10) Kāvera, (11) Murala, (12) Vānavāsaka, (13) Siṃhala, (14) Coḍa, (15) Daṇḍaka, (16) Pāṇḍya, (17) Pallava, (18) Gāṅga, (19) Nāsikya, (20) Koṅkaṇa, and (21) Kollagiri.¹

Central India comprised the eastern portion of Rajputana and the whole of the Gangetic plain from Thāneśar to Benares.

¹ Prthūdakāt parata uttarāpathaḥ. Yatra Śaka-Kekaya-Vokkāṇa-Hūṇa-Vāṇyujā-Kāmbhoja-Vāhika-Valhava-Lampāka-Kulūta-Kira-Taṅga-Tuśāra-Turuśka-Barbara-Harahūva-Hūhuka-Sahuḍa-Haṃsamārga-Ramaṭha-Kara-kaṇṭha-prabhṛtayo janapadāḥ Himālaya-Kulindrendra-Kila-Candrādayaḥ parvatāḥ

Devasabhāyāḥ parataḥ pascāddesaḥ. Tatra Devasabha-Surāṣṭra-Daśeraka-Travāṇa-Bhṛgukaccha-Kacchīyānartārbuda-Brāhmaṇavāha-Yavana-prabhṛtayo janapadāḥ

Tatra Vārāṇasyāḥ parataḥ pūrvadesaḥ. Yatrāṅga-Kalinga-Kosala-Tosalotkala-Magadha-Mudgara-Videha-Nepāla-Puṇḍra-Prāgjyotiṣa-Tāmaliptaka-Malada-Mallavartaka-Suhma-Brahmottara-prabhṛtayo janapadāḥ

Māhiśmatyāḥ parato dakṣiṇāpathaḥ. Yatra Mahārāṣṭra-Māhiśaka-Āśmaka-Vidarbha-Kuntala-Krathakaiśika-Śūrpāraka-Kāñci-Kerala-Kāvera-Murala-Vānavāsaka-Siṃhala-Coḍa-Daṇḍaka-Pāṇḍya-Pallava-Gāṅga-Nāsikya-Kaṅkaṇa-Kollagiri-Vallara-prabhṛtayo janapadāḥ (Kāya-mīmāṃsā, pp. 93-4.)

Rājaśekhara, the poet, does not give the names of its component kingdoms, but there is no doubt that, with the help of Hiuan Tsang, these names could be restored. It probably consisted of the following sixteen kingdoms :—(1) Kuru-kṣetra, (2) Matsya, (3) Śrughna, (4) Maḍavara and Brahmapura, (5) Goviṣāṇa, (6) Ahicchatra, (7) Pilośanā and Sāṃkāśya, (8) Śūrasena, (9) Kānyakubja, (10) Ayodhyā, (11) Hayamukha, (12) Prayāga, (13) Kauśāmbī, (14) Kuśapura, (15) Vaiśākha, and (16) Kāśī. Not having access to the original Samskr̥ta sources, Sir Alexander Cunningham included some portions of Eastern and Western India with Central India : in reality it contained only sixteen kingdoms, and not thirty-seven, as he thought.

As to the geographical division of Ancient India into nine regions, as given by Varāhamihira and in the Purāṇas, it was perhaps made from the astronomical point of view, and adopted by poets and literary folk for providing similes with the lotus, and sometimes with the human body, which contains, according to the Hindu belief, nine 'entrances' for the senses. The *Śrīcakra-sambara-tantra* may be quoted as a good instance of how these nine divisions were used to furnish similes.¹ The *Bodhāyana-grhya-sūtra* went so far as to specify the ruling planet together with the name of the country representing each main division.²

¹ *Śrīcakrasambara Tantra*, pp. 30-1.

² *Atha nava-graha-pūjā-vidhiḥ*.

Madhye vartulākāra-maṇḍale pratyāṇmukhaṃ *Kalīṅga-deśajaṃ*. . . .
 Sūryasya dakṣiṇa-dig-bhāge trikoṇākāra-maṇḍale dakṣiṇābhīmukhaṃ
Avantideśajaṃ. . . . Sūryasya pūrva-dig-bhāge pañca-koṇākāra-maṇḍale
 prāṇmukhaṃ *Bhojakaṭaka-deśajaṃ*. . . . Sūryasyāgneya-digbhāge caturaśrā-
 kārā-maṇḍale pratyāṇmukhaṃ *Yamunādeśajaṃ* Ātreya-gotrajaṃ. . . .
 Sūryasyaiśāna-dig-bhāge bāpākāra-maṇḍale prāṇmukhaṃ *Magadha-deśajaṃ*
 Ātreya-gotrajaṃ. . . . Sūryasyottara-dig-bhāge dirgha-caturasra-maṇḍala
 udaṇmukhaṃ *Sindhu-deśajaṃ* Āngirasa-gotrajaṃ. . . . Sūryasya paścima-
 dig-bhāge dhanur-ākāra-maṇḍale udaṇmukhaṃ Kāśyapa-gotrajaṃ. . . .
Saurāṣṭra-deśajaṃ. . . . Sūryasya nai-ṛtya-dig-bhāge Śūrpākāra-maṇḍale
 dakṣiṇābhīmukhaṃ *Barbāra-deśajaṃ*. . . . Sūryasya vāyavya-dig-bhāge
 dhvajākāra-maṇḍale dakṣiṇābhīmukhaṃ *Antarvedi-deśajaṃ*. . . . (*Bodhā-
 yana-grhyasūtra*, adhyāya 17, praśna 1, pp. 196-205.)

In connexion with the number of countries Cunningham separated Persia and Ceylon from India proper, and reduced the number of eighty-two countries, as given by Hiuan Tsang, to eighty; but, as a matter of fact, two kingdoms should be added to make up the number eighty-four, as described by Vinayacandra in his *Kāvya-śikṣā*. Ceylon was for a long time considered to be a portion of India and at one time more definitely as the fourth district of Malaya.¹ It was represented at the *Rāja-sūya* sacrifice of Yudhiṣṭhira, and played an important part in epic poetry. It embraced the Buddhist religion in the time of Aśoka, and always took a leading part in the sea-borne trade of southern India.

Persia was a vast country, and some of its frontier districts were included in the Aparānta, Barbara, and Yavana kingdoms of India. It exported fine horses and other valuable articles to India, and Indian goods to the kingdoms of the west. "They (the people of Palmyra), being merchants," says Appian, "bring from Persia to Arabia Indian commodities, which they dispose of to the Romans."² Kālidāsa included it among the countries conquered by Raghu,³ and the Mauryan Emperor Candragupta annexed a portion thereof to his own empire. "The Indians," writes Strabo, "occupy (in part) some of the countries situated along the Indus, which formerly belonged to the Persians. Alexander deprived the Ariani of them, and established there settlements of his own. But Seleukus Nikator gave them to Sandrokottus, in consequence of a marriage contract, and received in return 500 elephants."⁴ As to its boundary, Pliny says that "most writers do not

¹ Tatra Vindhyādayaḥ pratitasvarūpa Malaya viśeṣās tu catvāraḥ. Teṣu prathamah:—"Āmūlayaṣṭeḥ phaṇiveṣṭitānāṃ saccandanānāṃ janananandānāṃ Kakkola-kailā-maricair-yutānāṃ jātitarūṇāṃ ca sa janma-bhūmiḥ." . . . Caturthaḥ:—"Sā tatra cāmikara-ratna-citraiḥ prāsadamālā-valabhīr-ṣaṅkaiḥ. Dvārāgalā-baddha-sureśvarāṅkā Laṅketi yā Rāvaṇa-rājadhāni." (*Kāvya-mīmāṃsā*, p. 92.)

² McCrindle's *Anc. Ind.*, p. 214.

³ Pārasikāṃs tato jetuṃ pratasthe sthala-vartmanā. (*Raghuvaṃśa*, Canto iv, verse 60.)

⁴ Cunningham's *Anc. Geo.*, Ed. 1924, p. 18. Cp. McCrindle, *op. cit.*, pp. 88-9.

fix the Indus as the western boundary (of India), but add to it the four satrapies of the Gedrosi, Arachotæ, Arii, and Paropamisadæ—thus making the River Cophes its extreme boundary".¹

The division of India into eighty-four countries seems very old. The *Bārhaspatya-artha-śāstra* gives the number of the principal countries as eighteen, that of the minor countries as seventeen, that of the marshy land countries as twenty-five, that of the hill countries as twenty, and that of the miscellaneous countries as four, making the total number eighty-four. It informs us, further, regarding the area of each country, which in some places is the same as that given by Hiuan Tsang and in other places slightly more or less. The names of the countries, together with the areas, as given by the *Bārhaspatya-artha-śāstra*,² may be arranged in a table in the following manner :—

¹ Cunningham, *Anc. Geog. of India*, Ed. 1924, pp. 17-18.

² 86. Rāmasrṣṭīś catvāriṃśacchatam dakṣiṇottare āśahyam dvādaśa Viśvāmitrasrṣṭīr ekādaśa. 87. Nepālam catuḥśatam. 88. Pūrva-samudratīre varunataḥ samudrāntam aṣṭa-yojanā. 89. Pañca-śata-dvīṭayam Uttaralāṭam Pūrvalāṭam ca. 90. Kāśī-Pāñcāla-dvīṭayam aśītiḥ. 91. Kekaya-Srījāyam śaṣṭiḥ. 92. Mātsya-Māgadham śatam. 93. Mālava-Śakuntam aśītiḥ. 94. Kosalāvantiḥ śaṣṭiḥ. 95. Saihya-Vaidarbha-dvīṭayam śata-dvīṭayam. 96. Vaideha-Kauravam śatam. 97. Kāmboja-Daśārnam aśītiḥ. 98. Ete mahā-viśayāḥ. 99. Ete khalu caturāśrāḥ. 100. Āraṭṭa-Bālīkaiḥ dakṣiṇottarataḥ śata-mātrau pūrva-paścād dvādaśau. 101. Śaka-Saurāṣṭrau caturāśrau catvāriṃśat. 102. Aṅga-Vaṅga-Kalīṅgāḥ śatamātrās caturāśrās ca. 103. Kāśmīra-Hūnāmbaṣṭha-Sindhavaḥ śatamātrās caturāśrās ca. 104. Kirāta-Sauvīra-Cola-Pāṇḍyā uttare dakṣiṇe sthitiḥ śatāṭparam śaṣṭi-mātrāḥ. 105. Yādava-Kāñci-viśayam catvāriṃśacchata-mātram. 106. Ete upaviśayāḥ. 107. Sapta-koṅkanās catuḥśatamātrā dvādaśa śaḍraṣṭrau ca. 108. Ete anūpāḥ. 109. Sahyādrau catvāro girivīśayāḥ. 110. Śrīparvate dvīṭayam. 111. Raivataka ekah. 112. Vindhya pañca. 113. Kumāra ekam. 114. Mahendre trayam. 115. Pāriyātre trayam. 116. Sarve dakṣiṇottarataḥ pañcāśan-mātrāḥ pūrvataḥ paścāt pañca-yojanāḥ samāḥ. 117. Mlecche yavana-viśayāḥ pārvatīyāḥ. (Le Muséon, 33, pp. 1915-16.)

70. Tatrottare Himavān. 71. Tasya dakṣiṇe Nava-sāhasrī bhūḥ. 72. Tatra dakṣiṇātyo Bhārataḥ khaṇḍaḥ. (Le Muséon, *The Bārhaspatya-sūtra*, iii, p. 143.)

TABLE NO. I

| <i>Countries.</i> | <i>Area in yojanas ?</i> | <i>Countries.</i> | <i>Area in yojanas ?</i> |
|--|------------------------------|---|------------------------------|
| 1. Uttara-Lāta . . . | 105 | 1. Āratta . . . | 100 × 12 |
| 2. Pūrva-Lāta . . . | 105 | 2. Vālhika . . . | 100 × 12 |
| 3. Kāśī . . . | 80 | 3. Śaka . . . | 40 |
| 4. Pāñcāla . . . | 80 | 4. Surāstra . . . | 40 |
| 5. Kekaya . . . | 60 | 5. Aṅga . . . | 100 |
| 6. Śrājaya . . . | 60 | 6. Vaṅga . . . | 100 |
| 7. Matsya . . . | 100 | 7. Kalinga . . . | 100 |
| 8. Magadha . . . | 100 | 8. Kāśmīra . . . | 100 |
| 9. Mālava . . . | 90 | 9. Hāṇa . . . | 100 |
| 10. Śakunta . . . | 90 | 10. Ambaśtha . . . | 100 |
| 11. Kosala . . . | 60 | 11. Sindhu . . . | 100 |
| 12. Avanti . . . | 60 | 12. Kirāta . . . | 100-60 ? |
| 13. Saihya . . . | 100 ? | 13. Sauvīra . . . | 100-60 ? |
| 14. Vaidarbha . . . | 100 ? | 14. Cola . . . | 100-60 ? |
| 15. Vaideha . . . | 100 | 15. Pāṇḍya . . . | 100-60 ? |
| 16. Kuru . . . | 100 | 16. Yādava . . . | 140 |
| 17. Kāmboja . . . | 80 | 17. Kāñci . . . | 140 |
| 18. Daśārṇa . . . | 80 | | |
| Total = 18 Principal countries (<i>mahārīṣaya</i>). | | Total = 17 Minor countries (<i>uparīṣaya</i>). | |

| | |
|-----------------------------|-------|
| 7 kingdoms of Koṅkaṇa . . . | 104 |
| 12 „ dvādaśa-rāstra . . . | 104 ? |
| 6 „ ṣaḍ-rāstra . . . | — ? |

Total = 25 kingdoms of low lands (*anūpa-rīṣaya*).

| | |
|----------------------------------|--------|
| 4 kingdoms on the Saihya Mt. . . | 50 × 5 |
| 2 „ „ Śrī Mt. . . | 50 × 5 |
| 2 „ „ Raivataka . . . | 50 × 5 |
| 5 „ „ Vindhya Mt. . . | 50 × 5 |
| 1 „ „ Kumāra Mt. . . | 50 × 5 |
| 3 „ „ Mahendra Mt. . . | 50 × 5 |
| 3 „ „ Pāriyātra Mt. . . | 50 × 5 |

Total = 20 kingdoms on hills, each having an average area of about 70 *yojanas*.

| | |
|---------------------------|------------|
| 1. Rāma-srṣṭi . . . | 140, 112 ? |
| 2. Viśvāmitra-srṣṭi . . . | 111 |
| 3. Nepāl . . . | 104 |
| 4. Varuṇa . . . | 108 (8 ?) |

Total = 4 miscellaneous kingdoms.

Total of countries mentioned in the *Bārhaspatya-artha-śāstra* =
84 (18 + 17 + 4 + 25 + 20 = 84).

There is probably much truth in the figures given by Hiuan Tsang, if we understand them to refer to the area and not

to the circumference of each kingdom. Take, for instance, the kingdoms of Gurjara, Valabhi, Surāṣṭra, Ānandapura, and Atāli. These, according to Hiuan Tsang, had a circuit of about 26,000 *li*. The *Bārhaspatya-artha-śāstra* gives in respect of these kingdoms certain figures which total 630 *yojanas*, or 25,200 *li* (taking one *yojana* as equal to 40 *li*). The difference of 800 *li* is comparatively small, if we take into account the fact that the boundaries of the kingdoms may have varied between the two periods of time, and the difficulty of identifying exactly the area referred to in each case. It is remarkable that both these authorities give the very same figure in respect of Aṅga, viz. 4,000 *li*, or 100 *yojanas*. In the case of other kingdoms the figures given are exactly the same, provided we take a *yojana* as equal to 12·12 miles or 50 *li*, as suggested by Dr. J. F. Fleet in his article on "The Yojana and Li" (*JRAS.*, vol. xxxviii, 1906, p. 1011). It appears that two distinct *yojanas* were in use in Ancient India, namely, one equal to 9·532312 miles, or say 40 *li*, as suggested by a French authority, and the other equal to 12·12 miles, or say 50 *li*, as proposed by Dr. J. F. Fleet. The similarity between the figures of the *Si-yu-ki* and the *Bārhaspatya-artha-śāstra* can be seen from the following table :—

TABLE NO. II

The *Bārhaspatya-artha-śāstra* figures and the
Si-yi-ki figures compared.

| Countries. | The figures given in the | | The figures given in the | |
|---------------------------|---------------------------------------|-----------------|-----------------------------|--------------------------------|
| | <i>Bārhaspatya- artha-śāstra.</i> | <i>yojanas.</i> | <i>Si-yu-ki.</i> | <i>li.</i> |
| Aṅga | 100 (× 40 =) | 4,000 | 1 | <i>yojana</i> = 40 <i>li</i> . |
| Vārāṇasī | 80 (× 50 =) | 4,000 | 1 | .. = 50 .. |
| Kaliṅga | 100 (× 50 =) | 5,000 | 1 | .. = 50 .. |
| Magadha | 100 (× 50 =) | 5,000 | 1 | .. = 50 .. |
| Kāñcī (Draviḍa) | 140 (× 50 =) | 6,000 | 1 | .. = 50 .. |
| Nepāla | 104 (× 40 =) | 4,000 | 1 | .. = 40 .. |
| (approximately) | | | | |
| Cola | 60 (× 40 =) | 2,400 | 1 | .. = 40 .. |
| Vaṅga (Puṇḍravardhana) | 100 (× 40 =) | 4,000 | 1 | .. = 40 .. |

| Surāṣṭra countries. | | Surāṣṭra countries. | |
|---------------------|-----|---------------------|-------|
| Yādava . | 140 | Atāli . | 6,000 |
| Sauvira . | 140 | Kaccha . | 3,000 |
| Sindhu . | 100 | Valabhi . | 6,000 |
| Valabhi . | 105 | Ānandapura | 2,000 |
| Pūrva-lāṭa . | 105 | Surāṣṭra . | 4,000 |
| Surāṣṭra . | 40 | Gurjara . | 5,000 |

Total = 630 *yojanas*. Total = 26,000 *li*.

Surāṣṭra countries total = 630 ($\times 40 = 25,200$ *li*) = 26,000 (approximately, taking 1 *yojana* = 40 *li*).

The similarity between the figures given in the *Bārhaspatya-artha-śāstra* and the *Si-yu-ki* may possibly afford an answer to the question raised by Dr. Fleet, namely, "Whence did Hiuen Tsiang obtain these details? Was it from official records, or from the Buddhist books or from what other source?" As the *Bārhaspatya-artha-śāstra*, like the *Artha-śāstra* of Kauṭilya, is a treatise dealing with administrative affairs, it is most probable that both authorities derived their figures from the official records kept in each kingdom for the purpose of collecting land revenue. And if this was the source, as it is reasonable to conjecture, then the figures given by both should be taken as representing only the area surveyed by government officers, and as but approximately correct. As to Dr. Fleet's further question (in his article on "Dimensions of Indian Cities and Countries" quoted above): "And to what extent, in respect of the countries in particular may we, making allowance for the fact that the statements in this class would obviously give only approximations, in round numbers, accept these details as authentic?" If we understand Hiuan Tsang's figures to represent, not the circuit, but the surveyed area of each kingdom, then their accuracy or inaccuracy can easily be roughly tested.

The total for all India of the figures given in the *Bārhaspatya-artha-śāstra* is 9,000 *yojanas*.¹ The same figure is given

¹ Nava-sahasra-yojana-vistīrṇe bhārata-khaṇḍe. Nava-sahasra-yojana-vistīrṇa-bhāratavarṣe. (*Śrī-Śukla-yajurvedīyānām brahma-nitya-karma*, pp. 10, 12.)

by other authorities also. The average of the figures given in respect of each kingdom by Hiuan Tsang amounts to approximately 4,000 *li*, or say 100 *yojanas*. If we multiply this by 84, the total number of kingdoms as given in the *Bārhaspatya-artha-śāstra*, we get 8,400 *yojanas*. Or, if we take the figures given in the *Bārhaspatya-artha-śāstra* in respect of thirty-three principal and minor countries (as it does not give round numbers for Vāhlika and Āraṭṭa), the total is 3,250 *yojanas*, giving an average per country of 98.7 *yojanas*. Multiplying this average by eighty-four, we should get 8,290.8 *yojanas* for the whole of India.

Sir Alexander Cunningham took a *yojana* to be equal to 9 miles. The *yojana* not representing the same distance in all parts of the country, it will be safe to adopt as the standard *yojana* the average of the different *yojanas*. According to Cunningham, there were three *krośas* prevalent in his time, viz. that of $1\frac{1}{4}$ miles in the north-west and the Panjab, that of $2\frac{1}{4}$ miles in the Gangetic provinces, and that of 4 miles in Bundelkhand, Mysore, and Southern India. The average of these three is $2\frac{1}{2}$ miles.¹ As one *yojana* was always recognized to be equal to 4 *krośas*, we may fairly assume the average length of the *yojana* to have been about 10 miles. Therefore 8,628 *yojanas* would represent about 862,800 square miles (taking the figures as referring to *area*, and not *circuit*).

Modern India, excluding Burma, but including the Native States, comprises about 1,600,000 square miles,² nearly double the area as calculated from the figures given in the *Bārhaspatya-artha-śāstra* and the *Si-yu-ki*. The difference may be explained by the fact that the balance in ancient times was unexplored or unsurveyed, owing to its being covered by forests or uncultivable.

Now it seems clear that Hiuan Tsang's figures were based either upon the information given him by the people he

¹ Cunningham's *Anc. Geo.*, Ed. 1924, p. 658.

² *Census of India*, 1921, vol. i, p. 58; *Statistical Abstract for British India*, 1912-13 to 1921-2; *East India* (Statistical abstract), vol. 57, 1925, p. 2.

consulted on the spot, or upon the records kept by the local authorities. In reducing the *yojana* to *li* he appears to have treated the figures as linear measurements, multiplying by 40, instead of by (40×40) 1,600, as he should have done if they represented superficial measure. That Hiuan Tsang, with his great learning and accuracy of observation and record, should have made an error of this kind may perhaps be regarded as the chief stumbling-block to the acceptance of the conclusion that the figures represent areas in square measure.

Such a mistake is, however, very common with the ancient writers. For instance, in the *Dāna-mayūkha* and many other books treating of similar subjects, we find the *nivartana* measure described as (3×10) 30 *daṇḍas*,¹ instead of $(3 \times 10 \times 10)$ 300 *daṇḍas* as given by Kauṭalya.²

Saṃskṛta words expressing superficial measure are generally made by adding the prefix *pari*, which means 'surrounded by', e.g. *parimāṇa*, *pari-kṣetra*, etc. It is quite likely that the Chinese traveller tried to translate the Saṃskṛta prefix *pari* by the Chinese word *chau*, which had exactly the same meaning, namely 'surrounded by'.

Whatever may be the origin of the error, it is quite clear that in both authorities, the *Bārhaspatya-artha-śāstra* and the *Si-yu-ki*, the figures cannot be taken as representing circuit. But, on the other hand, if we understand them to denote the surveyed areas, we do not meet with any serious difficulty.

II. SMALLER TERRITORIAL DIVISIONS: THEIR NAMES AND MEANINGS

The problem regarding the numerical designations attached to the countries mentioned in the last section is more difficult to solve than the problem connected with their number and

¹ Chap. III, p. 83, note 1.

² Daśa-daṇḍorajjuh. Dvi-rajjukah parideśah. Tri-rajjukam nivartanam. Ekato dvi-daṇḍādhiko bāhuḥ. (*Kau. Artha*, p. 107.)

dimensions. Take, for instance, the Southern Indian inscriptions referring to land grants. They contain numerical designations in connexion with some countries, e.g. the Kisukād seventy (*El.*, vol. xii, No. 32, p. 296, note by Dr. J. F. Fleet), the Torugare sixty (*ibid.*, vol. xv, No. 6, p. 79), the Māsavāḍi hundred and forty (*ibid.*), the Sāgar three hundred (*ibid.*, vol. xii, No. 32, pp. 272-3), the Karatikallu three hundred in the Eḍaḍore two thousand (*ibid.*, No. 34, p. 313), the Nolambāḍi thirty-two thousand (*ibid.*, vol. xvi, No. 7, p. 28), the Kaṅgāl five hundred (*ibid.*, vol. xvi, No. 7, p. 28), the Hagarīṭage three hundred (*ibid.*, vol. xii, No. 34, p. 307), the Kukkanūr thirty (*ibid.*, vol. xvi, No. 8, p. 37), the Bāllakund three hundred (*ibid.*), the Elambi twenty (*ibid.*, vol. xvi, No. 10, p. 72), the Kandur and Santalige thousand each (*ibid.*, No. 9 B., p. 59), the Banavāsa twelve thousand (*ibid.*), the Belvolā or Beluvāl (*ibid.*, No. 9 A, p. 56), and Huligere three thousand each (*ibid.*, No. 8, p. 35), the Palāsige twelve thousand (*ibid.*, p. 50), the Kūṇḍi three thousand (*ibid.*, No. 1, p. 3), the Pānuṅgall five hundred (*ibid.*, vol. xii, p. 298), the Niryumbola seventy (*ibid.*, No. 32, p. 290), the Kundbura thirty (*ibid.*, p. 298), etc. The grand total of these figures in respect of Southern India amounts to seven *lakhs* fifty thousand (see *Bomb. Gaz.*, vol. i, pt. ii, p. 341, n. 2.).

What do these numerical components mean? Why are they given so much importance in connexion with land-grants?

What purpose do they serve there? Are they mythical and exaggerated? "There has been a mistaken idea," says Dr. Fleet, "which apparently originated with Dr. Burnell (see his *South Indian Palæography*, second edition, p. 67, last paragraph but one), that the numerical components of this and similar appellations denote the amount of revenue. And some apparent reason for it might be found in the facts that there are not so many as twenty thousand villages in Mysore, and not quite forty-four thousand villages and hamlets in the whole of the Bombay Presidency. . . . But there are

quite enough passages to show clearly that the reference is to the numbers, real, exaggerated, or traditional, of the cities, towns, and villages: for instance, the Aihole inscription of A.D. 634-5 mentions 'the three Mahārāshṭras, containing ninety-nine thousand villages' (*Ind. Ant.*, vol. viii, p. 244); the Śilāhāra records of A.D. 1026 and 1095 distinctly speak of a division of the Koṅkaṇ containing 'fourteen hundred villages' (*id.*, vol. v, p. 280, and vol. ix, p. 38); an inscription at Pāṭna in Khāndēsh, of about A.D. 1222, speaks as distinctly of 'the country of the sixteen hundred villages' (*Epigraphia Indica*, vol. i, p. 345); and the meaning of the name of the territorial division, called the Vēḷugrāma or Vēṇugrāma seventy, is explained by a passage which describes Vēḷugrāma as 'resplendent with seventy villages' (*Jour. Bo. Br. R. As. Soc.*, vol. x, p. 252). Other instances of very large numbers are, the Nōḷambavāḍi thirty-two thousand, in the district of Bellāry; the Kavaḍidvīpa lakh-and-a-quarter, which was the northern part of the Koṅkaṇ; and the seven-and-a-half lakh country, which is the expression that was used in later times to denote the territory that was held first by the Rāshṭrakūṭas and then by the western Chālukyas. These large numbers must be gross exaggerations, based possibly on some traditions or myths. But there appears no reason for objecting to accept the literal meaning of such more reasonable appellations as the 'Koṅkaṇa fourteen-hundred and nine-hundred', the 'Sāntalige thousand', the 'Tardavāḍi thousand', the 'Pānumgal five-hundred', and the 'Beḷvola three-hundred'; and possibly, when we know more as to how far the larger numbers include the smaller, of the 'Kūṇḍi three-thousand', the 'Karahāṭa four-thousand', the 'Toragale six-thousand', the 'Palasige twelve-thousand', and the 'Banavāsi twelve-thousand'. The system of administration by dividing the country into circles of tens, twenties, hundreds, and thousands of villages, is prescribed in the *Mānava-dharma-śāstra*, vii, 113 to 117". (*Bomb. Gaz.*, vol. i, pt. ii, p. 298, n. 2.)

THE TERM *GRĀMA*

From the passage quoted above it appears that Dr. Fleet had no hesitation in accepting the numbers as true when they were small; but, when very large, he thought that they were mythical or exaggerated. Personally I should rather prefer to consider them to be true or false as a whole, whether they be large or small. However, before rejecting or accepting these figures, it will be as well to find out the actual meaning of the word *grāma*, which they qualify. It is translated in English by the words 'village', 'town', or 'city'. Does it really signify this or something quite different?

When cataloguing the *Prajñāpanopāṅga*, an old Jain canonical work, I was astonished to find the meaning of *grāma* given as an estate or a survey village which can pay eighteen kinds of Government taxes.¹ I consulted many Samskr̥ta lexicons as to this interpretation, but without any success. It is well known that these lexicons were compiled from a literary view-point and that they are not of much assistance as far as the technical meanings of words are concerned. But the case was quite different with the Jain lexicographers, who had to deal with the Prākṛta words used in different meanings in their scriptures.

In the time of the great Guptas, and even many centuries prior to them, it appears that the word *grāma* was used in official records for an estate, and in poetical and literary works for a village or settlement. A discussion arose among scholars with regard to its technical meaning. They agreed that the word *grāma* meant an estate, whether cultivated, fallow, or *jangal*, but they differed as to the size or area to which it referred.

¹ . . . Mahāvīdehesu cakkavattī-khaṃdhāvāresu vāsudeva-khaṃdhāvāresu baladeva-khaṃdhāvāresu maṃḍaliya-khaṃdhāvāresu mahāmaṃḍaliya-khaṃdhāvāresu gāma-nīvesesu nagara-nīvesesu nigama-nīvesesu . . . (Commentary: Mahāvīdehesu, kintu cakravarttiskandhāvāresu . . . "gāma-nīvesesu" ityādi, grasati buddhyādīn guṇān iti grāmaḥ, yadi vā ganyah śāstra-prasiddhānām aṣṭādaśakarāpām iti grāmaḥ. . . . *Śrī-Prajñāpanopāṅga*, fol. 46, part i.)

Like the commentator of the *Prajñāpanopāṅga*, Vijaya-candra also in his *Abhidhāna-rājendra*¹ defines *grāma* as an

¹ *Gāma-grāma*-pum. Gamyo gamaniyo 'ṣṭādaśānām śāstre prasiddhānām karāṇām iti vyutpattyā, grasate vā buddhyādīn gunān iti vyutpattyā vā pṛṣṭarādītvaṇ niruktavidhinā grāmāḥ. . . . Prācuryeṇa grāma-dharmopetattvāt karāḍigamyo vā grāmāḥ. Ācā. 2 Śru. 1 A. 2 U. . . . Sanniveśa-viśeṣe, Praśna. 3 Āsra. dvāra. Bha. Jñā. Kaṇṭaka-vāṭakā-vṛtaṃ janānām nivāse, Uta. 2 A. Sūtra. . . . Tatrāneka-vidha-naigamānām anyāny api pakṣāṇi yāni vaktavyāni tāni nāma-grāhaṃ samgrhṇann āha :—

Gāvo taṇāi sīmā, ārāmam udapāṇa-ceṭa-rūpāṇi |

Vāhiya vānamantara, nuggaha tatto ya āhipatī.

Gāvaḥ 1 ṛṇāni 2 upalakṣaṇatvāt ṛṇāhārakādayaḥ sīmā 3 ārāma 4 udapāṇam kūpaḥ 5 ceṭarūpāṇi 6 vāhirvṛtiḥ 7 vānam antaram devakulam 8 avagrahaḥ 9 tataś cādhipatiḥ 10 iti niyukti gāthā'ksarārthaḥ. Atha bhāvārtha ucyate—prathamam naigamaḥ prāha—yāvantaṃ bhūbhāgam gāvaś caritum vrajati tāvā sarvo'pi grāma iti vyapadeśam labhate. Tato viśuddhanaigamaḥ pratibhaṇati—

Gāvo vyaṃti dūram, pijam tu taṇakatthahāragādiyā |

Sūrutthite gataṃ-ti attha sampe tato gāmo.

Paristhūram api paragrāmam api caritum vrajanti, tataḥ kim evaṃ so'py eka eva grāmo bhavatu ? api ca evaṃ bruvato bhavato bhūyasām api para-sparam atidaviyasām grāmānām eka-grāmataiva prasajjati, na caitad-upapannaṃ, tasmān naitāvān grāmāḥ kimtu yat yāvanmātraṃ kṣetram ṛṇāhārakakāṣṭhahārakādayaḥ sūrya utthite ṛṇādyartham gatāḥ santaḥ sūrye 'stamayati ṛṇādi-bhāraṃ baddhvā punar āyānti, etāvāt kṣetram grāmāḥ.

Parasīmam pi vyaṃti hu, suddhataro bhaṇati jā sa sīmā tu |

Ujjāna avattā vā, ukkilam tā u suddhaparo.

Suddhataro naigamo bhaṇati—yadyapi gavām gocara-kṣetrād āsannataram bhūbhāgam ṛṇa-kāṣṭhā-hārakā vrajanti, tathāpi te kadācit parasīmānam api vrajanti, tasmān naitāvān grāma upapadyate. Ahaṃ bravīmi—yāvat svā ātmiyā sīmā etāvān grāmāḥ. Tato'pi viśuddhatarāḥ prāha—maivam. Atipracuram kṣetram grāma iti vocaḥ, kimtu yāvat tasyaiva grāmasya sambandhī kūpaḥ tāvad grāmaiti. Tato'pi viśuddhataro brūte—udyānam ārāmas tāvad grāma iti bhaṇyate. Viśuddhatamaḥ pratibhaṇati—etadapi bhūyastaraṃ kṣetram na grāma-samjñāṃ labdhum arhati, ahaṃ bhaṇāmi—yāvad udapāṇam tasyaiva grāmasya sambandhī kūpaḥ tāvad grāma iti. Tato'pi viśuddhataro brūte—idam apy atiprabhūtaṃ kṣetram, ato yāvat kṣetram avyaktāni ceṭarūpāṇi ramāṇāni gacchanti tāvad grāmāḥ. Tato'pi viśuddhatarāḥ prativakti etad apy atiriktatayā na samicīnam ābhāti, tato yāvantaṃ bhūbhāgam atilaghīyāṃso bālakā utkrīḍanto ringantaḥ prayānti tāvān grāma iti.

Eva viśuddha-nigamassa vaī parikkhevaparivumo gāmo |

Vavahārassa vi evaṃ, saṃgaha jahi gāma samavā ō.

Evaṃ vicitrābhiprāyāṇām pūrvanaigamānām sarva api prati-pattirv-yapoṣya sarva-viśuddha-naigama-nayasya yāvān vṛti-parikṣepaparivṛto bhūbhāgas tāvān grāma ucyate. . . . (The *Abhidhāna-rājendra* by Vijaya-candra; the article "Grāma", pp. 865-7.)

estate which can pay eighteen kinds of government taxes or which is assessed separately for revenue purposes. The word was used in the remotest period of Indian history in ten different meanings, viz.: (1) cows (*gāvaḥ*); (2) grasses (*trṇāni*); (3) boundary (*śīmā*); (4) pleasure-garden (*ārāma*); (5) well (*udapāna*); (6) servants ? (*ceta* ?); (7) fences (*bahiḥ*); (8) temple (*devakula* ?); (9) an estate (*avagraha*); (10) owner (*adhipati*).

Take, for instance, the first meaning, 'cows.' There was a body of scholars (*naigamaḥ*) who believed that *grāma* meant an estate containing an area as large as that of a pasture-ground. They defined *grāma* as an estate (*kṣetra*) where cows go to graze. This definition was rejected by others on the ground that cows sometimes entered a *grāma* (estate) belonging to others, which had its own separate existence as an estate (*grāma*). Others tried to explain the exact area of a *grāma* by saying that all land which is traversed by a wood-cutter should be taken as one *grāma* (estate). This definition again was not accepted owing to its being very vague. Some proposed to take *grāma* as meaning the estate owned by a family, and others as an estate equal in size to a garden; and so on. Apart from its technical meanings, there existed no difference of opinion as far as its popular use was concerned, namely, for 'a group of people settled on a portion of land and vice versa'.

The Inscription No. 20 of the Pāṇḍu-Lena Caves of Nāsik furnishes clear proof that the word *grāma* was frequently used for a petty estate. Understanding the term to mean 'a village', the editor of the text was perplexed by the unusual shortness of the inscription, and remarked that "The words in the original are Dhambhika-gāma, and seem to mean the village Dhambhika. As the text stands, this must be accepted, but it is unusual for the people of a city to bestow a village in gift. Villages generally are granted by kings, not by the people. Assuming that the people of Nasik did grant the village, it is curious that the inscription should

be so short and that it should make no mention of the person to whom it was given or of the object of grant". (See *Bomb. Gaz.*, vol. xvi, p. 590, *Pāṇḍu-Lena Caves*, No. xviii, Inscr. No. 20.) The difficulty here mentioned vanishes if we understand the word *grāma* as meaning an estate. According to the *Dāna-mayūkha* a donor should at least give a *grāma* to a Brāhmaṇa; if unable to give so much, he should at least give land measuring a *go-carma*. From this it is clear that the grant of a *grāma* to a Brāhmaṇa could be made by anyone. However in such cases the permission of the king was necessary. The ground for this will be discussed in the chapter dealing with the sale and purchase of land.

There is another most important inscription in the same place containing the words *tac ca kṣetram vikṣyate sa ca grāmo na vasati evaṃ sati*, meaning "it was thought that that field would be cultivated; but as that field (*sa ca grāmo*) is not under cultivation so", clearly showing not only that a *kṣetra* could be described as a *grāma*, but also that the word *vasati* was used in the sense of 'cultivation', as well as in that of 'habitation'.

The definition given by the *Kāmikāgama*, *Kāraṇāgama*, and *Mayamata* of the *ekabhoga-grāma* or *kuṭika-grāma* also shows that *grāma* means an 'estate'. According to them an *ekabhoga-grāma* means a property or an estate which can be enjoyed by one family, consisting of the owner and his servants.¹

It is to be regretted that all the translators of the ancient Indian law books should have committed the mistake of trans-

¹ Viprair athānyair varṇair vā bhogyo grāma udāhṛtaḥ.

Eko grāmaṇiko yatra sabhṛtya paricārakaḥ.

Kuṭikantadvijāniyād ekabhogas sa eva tu. *Kāmikāgama*.

Prāg-ukta-guṇa-yuktāya vedārthanipunāya ca.

Kuryāt taj jñānanidhaye dānaṃ syād uttamottamam.

Ekabhogam iti khyātam praśastam atidurlabham. *Kāraṇāgama*.

Anyaśaśaktānāṃ ced dānaṃ daśabhūsurāntamekādi.

Ekakuṭumbisametam kuṭikam syā(t ta)d ekabhogam iti kathitam.

Mayamata.

(Quoted in *EI.*, vol. xv, No. 5, p. 55.)

lating *grāma* everywhere by the English word 'village'. Owing to this error, as will be pointed out, some very eminent scholars were misled into building up theories regarding the nationalization of land, the organization of village communities, etc.

Take, for instance, the *Smṛti* of Yājñavalkya. According to that work, the disputes about a boundary of a field should be settled by the *sāmāntas* possessing equal *grāmas* (*sama-grāmāḥ* = having equal estates).¹ As to the meaning of *sāmānta*, Kātyāyana says that it means only an owner who possesses a neighbouring estate, whether such be a house, a field or a portion of land (*grāma*). He says further that if the neighbouring *sāmāntas* are personally interested in any dispute, then it should be settled by the *sāmāntas* next to them, and if they also are not disinterested, then it should be decided by the *sāmāntas* next adjoining. This whole group is termed lotus-shape. It appears from the *Artha-śāstra* of Kauṭilya that it comprised forty people (*sāmānta-catvāriṃśat-kulyā*) in number, who had the privilege of being present at the time of sale and purchase of land and of settling disputes in connexion with fields, houses and estates.²

¹ *Sāmāntā vā samagrāmās catvāro'stau daśāpi vā |*
Raktasragvasanāḥ sīmāṃ nayeyuḥ kṣitidhāriṇaḥ.
(Commentary.)

Grāmo grāmasya sāmāntaḥ kṣetram ksetrasya kīrtitam |
Grham grhasya nirdiṣṭam samantāt parirabhya hi. (Kātyāyana.)
Samsaktakās tu sāmāntas tat samsaktās tathottarāḥ |
Samsakta-sekta-samsaktāḥ padmakārāḥ prakīrtitāḥ. (Ibid.)

(*Yājñavalkya-smṛti*; *Vyavahāra-prakarṇa* 9, śloka 152, pp. 232-3.)

Sākṣyabhāve tu catvāro grāmāḥ sīmāntavāsināḥ |
Sīmāvinirṇayam kuryuḥ prayatā rāja-samnidhau. (Manu-smṛti,
viii, 258.)

² *Sāmānta-pratyayā vāstu-vivādāḥ. Grham kṣetram āramas setu-*
bandhas tatākam ādhāro vā vāstuḥ. (p. 166.)

Jñāti-sāmānta-dhanikāḥ krameṇa bhūmi-parigrahān kretubhyā bhaveyuh.
Tato'nye bāhyas sāmāntacatvāriṃśatkulyā grha-prati mukhe veśma
śrāvayeyuh. Sāmānta-grāma-vṛddheṣu kṣetram āramam setubandham
tatākam ādhāram vā maryādāsu yathāsetu-bhogam anenārgheṇa
kaḥ kretā iti trirātra-ghuṣita-vītam avyāhatam kretākretum labheta.
(p. 168.) (*Kauṭilya's Artha-śāstra.*)

If we take *grāma* to mean an estate, no difficulty arises. Everything seems reasonable and natural. All disputes were to be settled by the *sāmantas* of the adjoining estates. According to my interpretation, if a house in a street was to be sold, it was sold in the presence of forty householders residing in the same street or in the immediate vicinity. If a field in a village was to be sold, it was sold in the presence of the landowners (*sāmantas*), forty in number, holding estates in the vicinity of that field.

But things take a very different complexion to those who look on *grāma* as signifying a 'village'. The whole of the above-mentioned text then becomes meaningless. Interpreting *sama-grāmāḥ* as denoting the people possessing *equal* villages, would mean that disputes, sales, and purchases, etc., connected with a field in a village, were to be settled by the people living in other villages or, in other words, that each village was governed by a group of forty villages. The constituent villages of the group would vary in the case of different villages; and if two or more disputes or sales, etc., were going on simultaneously, the inconvenience and difficulties arising from such a regulation may readily be conceived!

Such an obviously absurd system of administration could never have existed in Ancient India. Why should the *sāmantas* of certain villages interfere with the affairs of others, possibly at some distance. Why should they be required to waste their time in travelling such distances in order to give an opinion in a dispute connected with a field or a house wherein they had no interest, and about which they knew nothing whatever? It would have been a great injustice to the land-owning classes of a village to have internal affairs settled by strangers and to count for nothing in their own dwelling-place. Furthermore, it is ridiculous to suppose that land-owners could have been forced to wander about from one village to another and neglect their own estates. It is possibly from such considerations as the above that certain scholars

have translated *sāmantāḥ vā samagrāmāḥ* as "the neighbours living in the same village". The use of *sama*, however, in the sense of 'same' is unusual, if not doubtful, in Saṃskṛta. The word *sama*, when joined to another word generally means 'having equal'. 'Same,' on the other hand, is ordinarily expressed by the Saṃskṛta word *samāna*, or *tat*.

It is interesting also to note how Kauṭilya employed the term. In *prakaraṇa* 173, which deals with the *Paragrāmi-kayoga*, he uses it for an 'estate'; *grāma-ghāta* for laying waste the countryside; *grāma-vadha* or *grāma-avas-kanda* for capturing a fort representing, or counted in the revenue records as, an estate; *para-grāma* for an estate belonging to others, etc. In *prakaraṇa* 171 also, the word *grāma* is used in the same meaning (estate). Groups of five and ten estates, which were under the supervision of a *gopa*, are referred to by the words *pañca-grāmī* and *daśa-grāmī*.¹

Going further back to the period of the Vedas and Upaniṣads we find that the word *grāma* was used more clearly for an estate. For instance, in the *Bodhāyana-dharma-sūtra* we find the word *grāma* explained by the commentator as *vāstu*,² which is defined by Kauṭilya as an estate containing land, garden, house and well, etc.³ In the *Chāndogya-upaniṣad*, in the story of Raikva the Brahmajñānin, a deserted place

¹ Svāmīno dūśya-grāmaṃ (p. 401); Grāma-vadhe'vaskande ca (p. 402); Grāma-ghāta-praviṣṭām vā (p. 403); Grāma-ghāta-daṇḍasya (p. 402); Vijigīṣuḥ paragrāmam avāptukāmaḥ (p. 394). See also *Prakaraṇas* 173 and 171; pp. 394-403. (Kauṭilya's *Artha-śāstra*.) Tatpradiṣṭaḥ pañca-grāmīṃ daśa-grāmīṃ vā gopas cintayet. (Ibid., p. 142.)

² Nirgatya grāmānte grāma-sīmānte vā'vatiṣṭhate tatra kuṭīm maṭham vā karoti kṛtaṃ vā praviśati.

(Commentary.)

Grāmānto vāstu-sīmā. Itarāḥ kṣetra-sīmā. Kuṭī eka-sthūpaṃ veśma. Maṭho bahu-sthūpaḥ. . . . (*Bodhāyana-dharma-sūtra*, iii, i, sūtra 13, p. 300.)

³ Sāmānta-pratyayā vāstu-vivādāḥ. Grāmaṃ kṣetram ārama-setu-bandhas tatākam ādhāro vā vāstuḥ. (Kauṭilya's *Artha-śāstra*, p. 166.)

(*viṇadeśa*) is called a *grāma*.¹ *Samgrāmāḥ samitayaḥ* of the *Atharvaveda* perhaps means an assembly of the people possessing estates.² It appears that the word *āranya* was used for those estates which were under forest, as it occurs in contrast to the word *grāma* in several places.³

To sum up, we shall not be far from the truth if we understand *grāma* to mean an estate, comprising cultivated and fallow lands as well as pasture, and including any buildings, wells, etc., existing thereon ; the area, in fact, that constituted the territorial unit for the purpose of revenue assessment.

III. SMALLER TERRITORIAL DIVISIONS : THEIR NUMBER AND SIZE

From the foregoing meanings of the Samskr̥ta word *grāma* it is clear that it was used to express many other things besides an inhabited hamlet or a village. In official revenue records it seems to mean an estate which paid government taxes and the king's dues. The "Kundavura thirty" of the copper-

¹ So'dhastācchakataṣya pāmāṇam kaṣamāṇam upopaviveśa. . . .

(The *Śaṃkara-bhāṣya* :—ity uktāḥ kṣattā anviṣya taṃ *viṇaḥ deśe* adhastāc chakataṣya gantryāḥ pāmāṇam kharjūṃ kaṣamāṇam kaṇḍūyamāṇam dr̥ṣtvā. . .)

taṃ hābhuyvāda Raikvedaṃ sahasraṃ gavāṃ ayaṃ niṣko'yam aśvatarī-ratha iyaṃ jāyā yaṃ grāmo yasminnāse mā bhagavaḥ śādhiti.

(The *Śaṃkara-bhāṣya* :—ayaṃ ca grāmaḥ yasminnāse tiṣṭhasi sa ca tvadarthe mayā kalpitāḥ. . .)

(*Chāndogya-upaniṣad*; Adhāya IV, khaṇḍa 1-2, mantras 8 and 4.)

² Ye samgrāmāḥ samitayas teṣu cāru vadāma te. (*Atharva-veda*, xii, i, 56.)

Samgrāme samyatte samayakāmaḥ. (*Taittirīya-saṃhitā*, ii, i, 8, 4.)

For an estate-owner the word *grāmaṇī* appears to be used in Vedic literature. See :—

Grāmaṇyo gr̥hān paretya mārutaṃ sapta-kapālaṃ puroḍāśaṃ nirvapati. . . . (*Śatapatha-brāhmaṇa*, 3, 1, 6.)

Mārutaḥ saptakapālo vaiśyasya grāmaṇyo gr̥he. (*Maitreya-saṃhitā*, ii, 6, 5 ; iv, 3, 8.)

Sindhukūlāśritā ye ca grāmaṇīyā mahābalāḥ. *Mahā-bhārata*, Sabhā-parva, xxxii.)

³ Yadgrāme yadarāṇye yatsabhāyām yadindriye. (*Atharva-veda*, v, xx, 17.)

See also the *Chāndogya-upaniṣad*, v-x, 3.

plate grant can be explained as meaning a place for the collection of revenue which comprised thirty estates.¹ The Miraj plates of Jayasimha II record that the king granted an estate (translated as a village in *Ep. Ind.*, vol. xii, No. 34), called Mādādūjhūru, belonging to the group of the Karatīkallu three hundred, which was in the Eḍadore two thousand.² Dr. J. F. Fleet thought that the Eḍadore two-thousand was a stretch of country between the Rivers Kṛishṇā on the north and Tungabhadra on the south, comprising a large part of the present Raichur district.³ At present this district contains altogether 893 villages.⁴ Taking the word *grāma* as meaning an estate, we have no reason to distrust the above-mentioned figures. The Karatīkallu was probably a fairly large village, approximating to a town; and if we divide 2,000 by 300, the number of such towns would come to about six. There were small centres of revenue collection (*saṃgrahaṇa*) like Elambe, Kukkanur, Kisukād, Kundavura, Toṛugare, etc., comprising somewhere between twenty and seventy estates.⁵ The number of such centres of revenue collection comes to nearly forty, if fifty may be taken as the average number of estates in each centre (*saṃgrahaṇa*).

It has already been shown that we need find no difficulty in explaining the numerical appellations occurring in the Southern Indian inscriptions, provided we take *grāma* as meaning an estate. But it is interesting to note that these same numerical appellations seem to have proved a stumbling-block to writers from 326 B.C. down to modern times. The confusion dates from the time of Alexander the Great, when information about the kingdom of Poros was gathered in detail. "This country, it is said," writes the Greek historian

¹ *EI.*, vol. xvi, No. 8, p. 35; vol. xii, No. 32, p. 290.

² *EI.*, vol. xii, No. 32, p. 296, notes by Dr. Fleet; *IA.*, vol. viii, p. 18; *EI.*, vol. xii, No. 34, p. 303.

³ *IA.*, vol. viii, p. 18; *EI.*, vol. xii, No. 32, p. 296, notes by Dr. Fleet; *EI.*, vol. xii, No. 34, p. 303.

⁴ *Imp. Gaz.*, vol. xxi, p. 39.

⁵ *EI.*, vol. xv, No. 6, p. 79; vol. xii, p. 298; vol. xvi, No. 8 B, p. 37; vol. xvi, p. 28, No. 7; *IA.*, vol. xxx, 1901, p. 259 ff.

Plutarch, "contains 15 tribes, 5,000 considerable cities, and villages without number."¹ General Bunbury formed the same opinion as Dr. Fleet about these large numbers, and could not help remarking that "when the Greek writers tell us that the district between the Hydaspes and the Hyphasis alone contained 5,000 cities (?), none of which was less than that of Cos (Strabo, xv, p. 686), and that the dominion of Poros, which was confined between the Hydaspes and the Acesines—a tract not more than 40 miles in width—contained 300 cities (ibid., p. 698), it is evident that the Greeks were misled by the exaggerated reports so common with all Orientals, and which were greedily swallowed by historians of Alexander with a view of magnifying the exploits of the great conqueror".²

Taking the *grāma* as synonymous in meaning with the English word 'estate', we can readily understand the system of distributing land followed for revenue purposes by the Hindu kings. It appears that in ancient times, a country (*deśa*) was divided into *janapadas*, *janapadas* into *gaṇas* or say *parganas*, and *gaṇas* into *grāmas*. For instance, the *rāṣṭra* of Vanavāsaka contained 12,000 estates (*grāma*); that of Nolambavāḍi (Nulumbavāḍi), 32,000; that of Gangavāḍi, 96,000; that of the three Mahārāṣṭras, 99,000; and that of Southern India, 750,000.³ Vinayacandra in his *Kāvya-śikṣā* gives the numbers of estates for Eastern, Western, and Central India, as follows: (1) Koṅkaṇa, 1,414; (2) Candrāvati, 1,800; (3) the *janapada* on the banks of the Mahi river, 2,200; (4) Surāṣṭra, 9,000; (5) Lāṭa-deśa, 21,000; (6) Gurjara-deśa (including Aparānta), 70,000; (7) Ahūda and Brāhmaṇa-pāṭaka (both together), 100,000; (8) Dāhala, 900,000; (9) Mālava-deśa, 1,892,000; and (10) Kānyakubja (empire?), 2,600,000. After giving these figures, he adds that the countries the numbers of which are not given should

¹ McCrindle, *The Invasion of India by Alexander the Great*, p. 309.

² Ibid., p. 309, note; Bunbury, *Hist. of Anc. Geog.*, i, p. 453.

³ *Bomb. Gaz.*, vol. i, pt. ii, p. 298, n. 2.

be taken as belonging to northern and southern India.¹ For this reason I take the number 2,600,000 as representing *grāmas* (estates) of the Kānyakubja empire. It is interesting to note that the countries mentioned above are very much the same as those which constituted the empire of Harṣa-vardhana.

As to the authenticity of these figures, they can be verified from other sources. Take, for instance, the Koṅkaṇa 1,414 of Vinayacandra. The Bhāṇḍūp plates of Chittarājadeva mentions a town named Purī, "which is marked as the chief town of a province consisting of fourteen hundred villages" (*grāmas* or estates).² The Thānā plates of A.D. 1017, the Bhādāna grant of A.D. 997 and the Khārēpāṭaṇ plates of A.D. 1095 all mention the number of estates (*grāmas*) in Koṅkaṇa as 1400.³ After careful study, Dr. Fleet arrived at the conclusion that "the Purī or Koṅkaṇa fourteen hundred seems to answer fairly closely to the Bassein, Sālsette, Bhiwṇḍī, and Kalyāṇ *tālukas*, with perhaps also the Karjat *tāluka* of Thānā, and the Panwēl, Pēṇ, and Alibāg *tālukas* of Kolāba".⁴ For Gujarāt (Gurjara-deśa) and Mālwa (Mālava-deśa), Vinayacandra gives the figures as 70,000 and 189,200 respectively. 'Abdullah Wassāf informs us that "it is related by sufficient informants, experienced travellers . . . that Sawālik contains 125,000 cities and villages; and Mālwa 1,893,000 towns and villages. . . . Gūjarāt, which is commonly called Kambāyat, contains 70,000 villages and towns, all populous, and the people abound in wealth and

¹ Kauṅkaṇa-prabhṛti-caturdaśādhikāni caturdaśa-śatāni. Candrāvati-prabhṛti aṣṭādaśa-śatāni. Dvāviṃśati-śatāni mahitatam. Nava-sahasrāṇi surāṣṭrāḥ. Ekaviṃśati-sahasrāṇi lāṭa-deśaḥ. Saptati-sahasrāṇi gurjara-deśaḥ pārataś ca. Ahūḍa lakṣāṇi brāhmaṇapāṭakam. Navalakṣāṇi dāhalāḥ. Aṣṭādaśa-lakṣāṇi dvīnavatyadhikāni mālavo eśaḥ. Ṣaḍ-viṃśal-lakṣāṇi kānyakubjaḥ. *Anantaram uttarāpatham dakṣiṇāpatham ceti.* (*Kāvyā-śikṣā* by Vinayacandra, quoted by C. D. Dalal in his introduction to the *Kāvyā-mīmāṃsā*, p. 24, note.)

² *ET.*, vol. xii, pp. 256-7, No. 31.

³ *Ibid.*; also vol. iii, No. 40.

⁴ *Ibid.*

luxuries".¹ In the same way we are told by Rashīdu'd-dīn in his book entitled *Jāmi'u't-tawārīkh* that "It is said that Guzerat [Gujarāt] comprises 80,000 [? 70,000] flourishing cities, villages, and hamlets. . . . After these comes the country of Sawālak, which comprises 125,000 cities and villages. After that comes Mālwā, which means 1,893,000 [? 1,892,000] in number".² It is possible that the copyist of the *Jāmi'u't-tawārīkh* transcribed a 2 in the case of Mālwā and a 7 in the case of Gujarāt as 3 and 8 respectively. Though Vinayacandra does not give any figures in respect of Sawālik, we know from the *Prabhāvakā-carita* of Hemacandra that it contained 125,000 *grāmas*, if we may assume Arjorāja to have been the king of Sawālik.³ Further, we are told that the country of Jālandhara contained the same number of *grāmas* (estates).⁴ These numerical territorial designations survived down to the Muhammadan period. After conquering Mālwā, says 'Abdullah Wassāf, Sultān 'Alāu'd-dīn despatched Malik Nabu [and] Zafar Khān to conquer the province of Telingāna. When they arrived on its frontier, "the Rāi . . . agreed to pay an annual tribute and receive the royal collectors, and that populous territory . . . containing more than 30,000 tracts of country, was added to the Muhammadan empire."⁵ The expression "tracts of country" used in this passage is remarkable, and seems to support the view that we have here an equivalent of the Samskr̥ta *grāma*.

Maṇḍana-panḍita in his *Śilpa-śāstra* gives the size of a palace as varying according to the number of estates over which a ruler ruled. According to him a ruler of 200,000 *grāmas* (estates) was called *mahāmaṇḍalika*; that of 50,000 *grāmas*, *maṇḍalika*; that of 2,000, *sāmanta-mukhya*; that

¹ Elliot, *The Hist. of India*, vol. iii, p. 31.

² Ibid., vol. i, pp. 67-8.

³ Sapādalakṣa-bhūmīśam arjorājaṃ madoddhuraṃ

Vigrahitumanāḥ senām asavenām asajjayat.

(The *Prabhāvakā-carita*, p. 321.)

⁴ Kuruksetre kanyakubje gauḍaśrīkāmarūpayoh |

Sapādalakṣavaj-jālandhare ca kṣasamadyataḥ. 108. (Ibid., p. 302.)

⁵ Elliot, *The Hist. of India*, vol. iii, p. 49.

of 1,000, *sāmanta*; and that of 100, *śatādhipa*.¹ In the Chitor-gadh stone inscription of Mekala it is mentioned that the king of Mewād (Medapāṭa) possessed a country which contained 100,000 tracts of land (*kṣiti*) or estates.² In the same way we are informed by the author of the *Prabandha-cintāmaṇi* that Prṭhvīrāja ruled over a country of 125,000 estates.³ We are further informed by Al Qazwīnī that the temple of Somanātha had an endowment of 10,000 estates. "Among the wonders of that place," he writes, "was the temple in which was placed the idol called Somnat. . . . Everything of the most precious was brought there as offerings, and the temple was endowed with more than 10,000 villages." ⁴ It is also stated by Sir E. C. Bayley that "The *jāgīrs* of Amīn Khān, Fateh Khān, and Tātār Khān Ghōrī consisted of nine thousand villages belonging to Jūnahgarh (constituting) eighty-seven *mahāls*." ⁵

From all the references cited above there can be little doubt that the figures referring to the numbers of *grāmas* (estates) in the different countries given by Vinayacandra must have been based on facts. The total number of *grāmas* (estates) in Eastern, Western, and Central India, according to him, comes approximately to 4,787,214. The number given for Southern India in the inscriptions and land grants is 750,000. If we take, as a very rough approximation, the same number (i.e. 750,000) for Northern India, we get the

¹ Grāmaikalakṣadvayam asti yasya. Prokto mahāmaṇḍaliko narendrah . . . Pañcāyuteśo nṛpa maṇḍaliko. . . . Sāmāntamukhyo dvyaṇuṭādhiposau. . . . Sāmāntasamjño yutanātha eva. . . . Grāmādhipā ye tu śatādhipās ca. . . . (*Rājavalabha*, pp. 81-2.)

² Virāl lakṣakṣitīśāj jagati nahi parah khyātabhuktiḥ su(bhuktiḥ). (*EI.*, vol. ii, No. xxxii, pp. 415-17.) (Note.—Here *lakṣa-kṣiti* is translated by the editor as 100,000 tracts of land.)

³ Sa ca sapāda-lakṣa-kṣitipatinā śrīprṭhvīrājena saha sañjāta-vigrahaḥ samarājīram adhirūḍhaḥ svasīnye parājite kāndīśikah kāmapi diśaṃ grhītvā palāyanaparah svarājadhānīm ājagāma. . . . (The *Prabandha-cintāmaṇi*, pp. 229-300, quoted by C. D. Dalal in his introduction to the *Rūpakasaṅkha* of Vatsarāja.)

⁴ Elliot, *Hist. of India*, vol. i, pp. 97-8.

⁵ Bayley, Sir E. C., *The Local Muhammadan Dynasties of Gujārāt*, p. 17.

total number of estates in the whole of India as 6,287,214, or, in round numbers, 7,000,000.

Size of a grāma.

No record has been found of the actual area of a *grāma*, which must have varied under diverse conditions in different parts of the country. In the circumstances we can only try to calculate from such data as are available to us the average area what may be assigned to it. If we take the figures already suggested above for the total 'surveyed' area and total number of *grāmas* in ancient India, namely, 862,800 square miles and 7,000,000 *grāmas*, and if we divide the former by the latter figure, we get about 79, or say 80, acres per *grāma*, or estate. But the *grāma* comprised many kinds of land—the cropped area, cultivable but uncropped or fallow land, and uncultivable areas consisting of pasture land, tanks, gardens, homestead, and perhaps jungle or hill. The most important question is, what was the average cropped area, and how are we to make an estimate of this?

According to the *Imperial Gazetteer*, vol. iii, p. 97 (1907 edition) the proportion between the "occupied area" (net cropped area + current fallow) and the total area in the more fully developed provinces, Madras, Bombay, Bengal, United Provinces, Panjab, Central Provinces and Berar, is approximately as 1 to 2, and in the less developed provinces, Burma, Assam and the N.W.F. Province, 1 to 3 or 4. More than a thousand years ago, when means of rapid transport were non-existent, and when the produce of all parts of the country was not distributed, as now, throughout the markets of the world, this proportion must clearly have been very much less; and we may safely reckon that the cropped area did not on the average cover more than one-fourth or one-fifth of the total area that we have regarded as having been surveyed in some form. In such case the cropped area of an average-sized *grāma* would cover roughly from 15 to 20 acres. Let us now see if this estimate can be tested by other methods.

From the records of the land grants it appears to have been the general practice to make a grant of one *grāma*, which was evidently considered to be the appropriate area for the maintenance in full comfort of a family of, say, on the average five persons of good social status, such as Brāhmaṇas. Vijayarājendra refers to the unit of taxation as one *grāma*, or five families of tenants.¹ It will be suggested later (see Chapter III, ii) that the produce of one acre was quite sufficient to maintain one adult person. A family of five, assuming that ordinarily not less than two of these would be children, would therefore be maintained by 3 or 4 acres, and five families could support themselves on from 15 to 20 acres, which represents the average cropped area in an average *grāma* according to the calculation made above.

Again, the commentator of the Kumāra-saṃbhava writes : “*pañcabhir halair grāmaṃ karṣati grāmaṇī*”,² meaning a *grāmaṇī* (estate-owner) ploughs a *grāma* (estate) with five ploughs. And the *Kṛṣi-śāstra* tells us that five ploughs mean wealth to the owner.³ It will be explained later that the area described as “one plough of land” would represent roughly 5 acres (see Chapter III, ii); so an estate-owner, according to our commentator, had about 25 acres of cultivation.

Then it appears from the *Upadeśa-taraṅgiṇī* of Ratnamandira Gaṇin that Kumārapāla realized one gold *gadyāṇaka* per *grāma*,⁴ a *gadyāṇaka* being a weight equal to 144 grains. As the *niṣka* or *kalaṅju* was exchanged for 256 copper *panas* (see Chapter III, iii), the gold *gadyāṇaka*, which was twice as heavy as the *niṣka*, may be taken as equivalent to 512 copper

¹ See Kara in the *Abhidhāna-rājendra*, pt. iii, p. 356. . . . sa cayam grāmeṣu pañcakulādīn adhikṛtya prasiddha eva. . . .

² *Kumāra-saṃbhava*, by Kalidasa, . . . Nityaṃ pañca-hale dhanam, 83.

³ Nityaṃ ca trihale bhaktam . . . 84. (*Kṛṣiśāstra*, compiled by Daśaratha Śāstrin.)

⁴ Rājā svadeśa-pratigrāma-svarṇa-gadyāṇaka-dānaṃ dattam. Tatas tasyāḥ prativarṣaṃ 18 lakṣa 92 sahasra grāma-gadyāṇakaiḥ 946 maṇa-pramāṇaṃ svarṇaṃ milatism. . . . (*Upadeśa-taraṅgiṇī*, by Ratnamandira Gaṇin, p. 258.)

panas. If we may assume that this amount was levied as the king's due from a *grāma*, and if we may also assume, as we have considerable reason for doing, that the king's due was in those days about one-fourth of the income from the land, the income from a *grāma* to the estate-owner would be some 2,048 copper *panas*. If the estate were cultivated on the half-share system, the value of the gross produce may well have been double this, or say about 4,100 copper *panas*. In the chapter on Prices it will be shown that in the eleventh century A.D. the price of paddy was two *akka* or fourteen copper *panas*, per maund. At that period, therefore, 4,100 copper *panas* would represent about 292 maunds. According to Mr. N. G. Mukharji (*Handbook of Indian Agriculture*, third edition, p. 176) an acre produces on an average about sixteen maunds of paddy. No doubt this represents the produce on the alluvial plains of northern India. In other parts of the country the outturn would be less, so that 292 maunds may fairly perhaps be taken to have been the average produce of about 20 acres.

These different references, while it cannot be claimed that they lead to an accurate solution of the question we put ourselves, at least point to much the same result, namely, that the cropped area in an average *grāma* (estate) in ancient India probably comprised between 15 and 25, or approximately 20, acres.



CHAPTER II
ADMINISTRATION

- I. *JANAPADA* DEFINED
- II. THE ADMINISTRATION OF A *JANAPADA*



CHAPTER II

ADMINISTRATION

I. JANAPADA DEFINED

AFTER giving a reasonable interpretation to the problems connected with the number of countries (*deśa*), their area (*parikṣepa* or *parimāṇa*) and their divisions into petty estates (*grāmas*), we are now in a position to take up the much more difficult problem of the minor territorial divisions known as *janapada*, *gaṇa*, and *gulma*.

As far as the *janapada* is concerned, it is translated by Dr. Śāmaśāstrin as "kingdom".¹ The use of this word in Samskr̥ta and Prākṛta books is very peculiar. Sometimes it is joined to the name of a town, like Kāśī, Kośala, Śākala, Madra, etc.,² and sometimes to the name of a tribe, like Śaka, Kekaya, Hūṇa, Kāmboja, etc.³ Its use in the plural is very common. In the *Chāndogyopaniṣad*, Śvetaketu is mentioned as going to the *janapadas* of Pāñcāla⁴; and in the *Prajñāpanopāṅga-sūtra* Rājagṛha is described as the capital

¹ The *Artha-śāstra* of Kautalya (English translation), pp. 54, 55, 253. [Note.—*Janapada* is translated as a "country part" on p. 143; as a "village" on p. 49.]

² Atha hainaṃ bhuṣyur lāhyāyaniḥ papraccha yājñavalkytei hovāca. Madreṣu carakāḥ paryavrajāma. . . . (*Śaṃkara-bhāṣya* :—Madreṣu madrā nāma janapadāḥ teṣu.) (*Bṛhadāraṇyakopaniṣad*, III-iii-kā, 1.)

³ Prthūdakatparataḥ uttarāpathaḥ. Yatra Śaka-kekaya-vokkāṇa-hūṇa-vāṇāyuja-kāmboja-vālhika-valhava . . . ramaṭha-kara-kaṇṭha-prabhṛtayo janapadāḥ. (*Kāvya-mīmāṃsa*, p. 94.)

⁴ Śvetaketuḥ hāruṇeyah pañcālānāṃ samitiṃ eyāya. . . . (*Śaṃkara-bhāṣya* :—Pañcālānāṃ janapadānāṃ samitiṃ sabhāṃ eyāya jagāma. . . .) (*Chāndogyopaniṣad*, V-iii-1.)

Yathā somya puruṣaṃ gandhārebhyo 'bhinaddhākṣaṃ āṇiyataṃ tato-
'tijane viśṛjet. . . . (*Śaṃkara-bhāṣya* :—Gandhārebhyo janapadebhyah
. . .) (*Ibid.*, VI-xiv-1.)

Pañcālānāṃ pariṣadam ājagāma. (*Āpastamba-dharma-sūtra*, I, ii, 5-6.)

of the *janapadas* of the kingdom of Magadha.¹ As far as the *Artha-śāstra* of Kauṭalya is concerned, the term is not used in the meaning of kingdom. In my opinion it is there employed in an administrative sense and denotes a territorial division. It appears that in the days of the Buddha, and even before his time, *janapadas* enjoyed the position of self-supporting, independent states. Their boundaries were probably determined by the natural features of the country. From time to time they were annexed by powerful kings, to whose control they became subject; but their internal administration was not necessarily interfered with. Kauṭalya writes:—

“Possessed of *sthānas* [modern *thānā*], self-supporting, capable of supporting others, able to protect itself, independent, obnoxious to enemies, governed by a powerful *sāmanta* [*śakya-sāmanta*], free from marshes, rocky, uneven and thorny tracts and tigers, wild beasts and wildernesses, beautiful, containing crown lands, mines, timber and elephant forest, full of cows and martial people, with well-protected pastures, full of cattle, not dependent on rain for water, possessed of land and waterways, having abundant valuable commercial articles, capable of furnishing revenue and taxes, full of cultivators, having intelligent masters and servants, and a population noted for its loyalty and reliability—these are good qualities of a good *janapada*.”²

The *Kāmandakīya-nīti-sāra*, following Kauṭalya as far as the characteristics of a *janapada* were concerned, adds that

¹ Khetariyā addha chavvisati vihānā paṃ., tam-rūyagiha-magaha-campā-amgā taha tāmalitti vaṃgāya. . . . Itthupatti jīṇaṃ cakkināṃ rāmakalhāṇaṃ, 113. (The vivaraṇa of Malayagiri:—Bhāvārthas tv ayaṃ—1 Magadhesu janapadesu rājagṛhaṃ nagaraṃ, 2 aṅgeṣu campā 3 vaṅgeṣu tāmalipī. . . .) (*Prajñāpanopāṅga* (Part I), fol. 57-8.) See also *Saptati-śata-sihāna-prakaraṇa*, fol. 24, 41.

² *Sihānavān* ātmadhāraṇaḥ paradhāraṇaś cāpadi svārakṣas svājīvaḥ śatru-dveṣī śakya-sāmantaḥ paṅka-pāśāṇośara-viśama-kaṇṭaka-śreṇi-vyāla-mrgātavihīnaḥ kāntassitā-khani-dravya-hasti-vanavān gavyaḥ pauraṣeyo gupta-gocaraḥ paśumān adevamātrko vāri-sthala-pathābhyām upetaḥ sāra-citra-bahu-paṇyo daṇḍa-kara-sahaḥ karma-śīla-karṣa-ko'bālīśa-svāmya-vara-varṇaprayo bhakta-śuci-manuṣya iti janapada-sampat. (*Artha-śāstra* of Kauṭalya, p. 258.)

its administrator should be stupid and dissolute. Being absorbed in pleasure, he will never make common cause with the *janapada* [people] and so will never revolt against his king.¹ The use of *janapada* in the plural, and the expression “*Īdrg janapadaḥ śasto mūrkhā-vyasani-nāyakaḥ*”, meaning that a *janapada*, governed by a stupid and dissolute ruler, should be considered the best, affords clear proof that it was a portion of a kingdom, or an administrative territorial division. Kauṭilya gives *Janapada-niveśa* as the heading of a chapter which deals with colonization,² signifying by the word *janapada* only a portion of a kingdom where new villages should be established. When he uses *janapada-kopa*, he means simply a disturbance in a portion of a kingdom, and not a general revolution.³ In the *Viśeṣa-śataka* of Samaya-sundara Gaṇin it is mentioned that Kuṇāla, together with its *janapada*, was completely flooded.⁴ Here *janapada* is used in the sense of territorial division. Kālahasti, in his book entitled *Viśva-brahma-purāṇa*,⁵ states that

¹ Sasyākāravatī paṇya-khani-dravya-samanvitā | Gohitā bhūri-salilā puṇyairjanapadairvṛtā. 49. Ranyā sakuñjara-vanā vāristhala-pathānvitā | Adeva-mātrkā ceti śasyate bhūr vibhūṭaye. 50. Saśarkaroṣapāśāṇā sātavi nitya-taskarā | Rūksā sakaṇṭaka-vanā savyālā ceti bhūr abhūḥ. 51. Svājīvo bhūguṇair yuktāḥ sānūpaḥ parvatāśrayaḥ | Śūdrakāru-vaṇikprāyo mahārambha-kṛṣṇvalaḥ. 52. Sānurāgo ripudveṣi pīḍākarasahaḥ prthuh | Nānādeśyaiḥ samākīrṇo dhārmikaḥ paśumān dhanī. 53. *Īdrg janapadaḥ śasto mūrkhā-vyasani nāyakaḥ* | Tam varddhayet prayatnena tasmāt sarvaṃ pravartate. 54. (*Kāmandakiya-nīti-sāra*, pp. 60-1.)

² Bhūtapūrvam abhūtapūrvam vā janapadaṃ paradeśāpavāhanena svadeśābhiṣyandavamanena vā niveśayet . . . (p. 45). . . Janapada-sandhi-saṅgraha-droṇamukha-sthānīyeṣu. . . (p. 147). Durga-janapada-śaktyā bhṛtya-karma samudāyavādena sthāpayet . . . (p. 247). (*Artha-śāstra* of Kauṭilya.)

³ Tathāpy atusyato daṇḍa-kara-sādhanaḥ dhikāreṇa vā janapada-vidveṣaṃ grāhayet. Vidviṣṭān upāmsūdaṇḍena janapadakopena vā sādhayet. (*Ibid.*, p. 23.)

⁴ Kuṇālāpi pañcadaśa dinair acchinnavarṣaṇāt | Sārdham janapade-nāmbhaḥ pūrāḥ prāvāhyatā'khilā, 6. (*Viśeṣa-śataka* of Samaya-sundara Gaṇin, fol. 51.)

⁵ Evam ekaikadeśe ca prthag janapadāni ca | Asāvasaṃkhyāny asṛjād viśvakarmā jagatpatih, 14. (*Viśva-brahma-purāṇa* of Kālahasti, p. 46.)

India contained fifty-six countries, and *janapadas* without number.¹

Size of a janapada

As to the size of a *janapada*, it appears that it varied according to the natural conditions of the country (*deśa*). It has been shown that before the establishment of eighty-four *deśas* (countries or kingdoms) the *janapada* enjoyed a more or less independent political position, and was governed by its own ruler or by a family or a group of families representing privileged classes. Afterwards it lost its position as a separate political entity and became tributary to some powerful ruler. As far as the holy places were concerned, the original boundaries were kept sacred and clearly defined. We find in the Purāṇas the area of some *janapadas* given as follows: (1) Puruṣottama-kṣetra, 10 *yojanas*²; (2) Setu-rāmeśvara, 10 *yo.*³; (3) Prabhāsa-parimaṇḍala, 20 *yo.*⁴; (4) Kuru-kṣetra, 12 *yo.*⁵; (5) Indraprastha, 4 *yo.*⁶ ($= 1 \times 4 = 4$);

¹ It appears that the *janapada*, after losing its separate independence, maintained its position as a territorial division. After the conquest of India by the Muhammadans, the land administration of the country continued as it was before: Muhammadan rulers did not make any remarkable change as far as the territorial units of the administration and the collection of the revenue were concerned. The *janapada*, under the name of *dastūr* as "A sub-division of a Sirkar, or aggregate of several adjacent Parganas" (Wilson, p. 129), continued in Muhammadan times, together with its code, or *janapada-dharma*, under the title of a *dastūru 'l-'amal*.

² Samudrasyottare tīre mahānadyās ca dakṣiṇe, 15.

Taṭam ārabhya tat kṣetram rūjmānam ca pāvanam.

Vartate tat samārabhya samantād daśa yojanam, 16. (From the Kṣetra-māhātmya of the *Skanda-purāṇa*.)

³ Daśayojana-vistīrṇam śatayojanam āyatam

Jānakīraṇaṇo rāmaḥ setum evam akārayat, 96. (From the *Garga-saṃhitā*.)

⁴ Yojanānām daśa dve ca prabhāsaparimaṇḍalam

Madhye 'sya pīthikā proktā pañca-yojana-vistīrtā. (From the *Prabhāsa-māhātmya* of the *Nārada-purāṇa*.)

⁵ Muktidam supavitram ca yojana-dvādaśāyatam

Prabhūta-toya-vistīrṇam jñātam tat kurusattamaiḥ, 13. (From the *Sarasvatī-māhātmya* of the *Mahābhārata*.)

⁶ Indraprastham idaṃ kṣetram sthāpitam daivatāiḥ purā | Pūrvapaści-mayos tāta ekayojana-vistīrtam, 75. Kālimdyā dakṣiṇe yāvad yojanānām catuṣṭayam | Indraprasthasya maryādā kathitaiḥ maharṣibhiḥ, 76. Padmapurāṇa uttarakhaṇḍam. (*Tīrthāvali-prabandha*, p. 166.)

(6) Mathurā-maṇḍala, 20 *yo.*¹; (7) Brahmāvartta-kṣetra, 5 *yo.*²; (8) and Nāsika-kṣetra, 4 *yo.*³ These eight *janapadas* had a total area of about 85 *yojanas*; the average area thus amounts to 10½ *yojanas*, or in round numbers 10 *yojanas*. It has already been pointed out that a country (*deśa*) had an average area of about 100 *yojanas*, so it was probably divided into 10 *janapadas*, and each *janapada* in its turn was divided for administrative purposes into 4 *sthānas*, each *sthāna* being under the administration of a *sthānika*.

It is a pity that the information contained in the Buddhist *Jātakas* cannot be regarded as scientifically accurate. There is no doubt, however, that they contain valuable material.

The figures denoting the area or circuit of a *janapada* were sometimes written after the names of prominent towns. This practice has led to misunderstanding. The areas of Kāśī and Mithilā, for instance, are given in Buddhist books as 12 and 7 *yojanas* respectively.⁴ These figures were discredited on the ground that they were too big. But the people of those days did not intend the names to be confined to the areas covered by houses. By "Kāśī" and "Mithilā", I am of opinion, were meant the areas included within

¹ Viṃśatīr yojanānām tu mātthuram maṇḍalam mama | Pade pade 'śvamedhasya phalam bhavati nānyathā, 11. (*Varāṇasipurāṇe-kṣetramāhātmyam*. See the *Tīrthāvali-prabandha*, p. 168.)

² Pañca-yojana-mātreyaṃ vedī sraṣṭuḥ kratoh sati. (*Brahma-saṃhitāyām utpalāraṇya-māhātmyam*. Ibid., p. 163.)

³ Tasmād apy aparaṃ tīrtham janasthānam iti śrutam | Caturyojana-vistīrṇam smaraṇān-muktidaṃ nṛṇām.

(*Brahmapurāṇe-nāsika-kṣetra-māhātmyam*. Ibid., p. 239.)

⁴ Tadāpana vārāṇasīyā pākāra-parikkhepo dvādasayojaniko hoti idam assā antaravāhiram pana tiyojanasatika-raṭṭham; "Now, at that time the perimeter of the ramparts of Vārāṇasi measured 12 *yojanas*, and this country, including the inside and outside, measured 300 *yojanas*." Amhākaṃ mahantaṃ rajjaṃ sattayojanikaṃ mithilānagaraṃ tīṇi yojana-satāni rajja-paricchedo hetṭhimantena solasa itthi-sahassāni laddhaṃ vaṭṭati (*Jātaka* No. 489): "Our kingdom is great one; the city Mithilā measures 7 *yojanas*; the exact definition, specification of the kingdom is 300 *yojanas*: (our son) should have 16,000 women at the very least." (*JRAS.*, 1907, p. 643.)

Videha = 300 *yojanas* (*Jātaka* No. 406, ed. Fausbøll). (*JRAS.*, 1907, p. 642.)

the administration of the *janapadas* known by these names. Moreover, the average area of these two *janapadas* amounts to 10 *yojanas*, which corresponds with the average area calculated from the Purāṇas.

While the original size of a *janapada* was small as compared with a *deśa* (country), it must be remembered that the importance and influence of a *janapada* in its relations with its *deśa* depended upon its chief or leader for the time being. If the leader of a *janapada* were a man of outstanding character, he might, and very often did, extend his authority over other *janapadas*, over a whole *deśa*, or even over several *deśas*. While, therefore, a particular *janapada* may have been only 10 *yojanas* in area or "circuit", it might at times, under a strong ruler, have extended its authority or control (*rājya*) over a wide area, perhaps as much as 300, or even 500, *yojanas*.¹ When we find mention in ancient writings (e.g. the *Jātakas*) of the sway of Kāśī and of Mithilā extending over 300 *yojanas*, we must regard such statements in the light of the above remarks.

Figures relating to the extent of a janapada : their authenticity or exaggeration discussed

Owing to the incorrect interpretation of the words *grāma*, *janapada*, etc., and to the want of a clear understanding of the system of administration and the distribution of estates the conditions of Ancient India have hitherto never been properly understood. "In the face of all this," writes Dr. J. F. Fleet, "we must, I think, reluctantly come to the

¹ The following text appears to be quite reasonable provided the interpretation regarding the figures given above be accepted as correct.

Attano vijite pañcasata-yojana-parimaṇḍale manusse sannipāṭhesi; "He assembled all the men in his realm, which had a circuit of 500 *yojanas*." (*JRAS.*, 1907, p. 643.)

Kāpana = assa rājiddhi tiyojanasatānaṃ dvinnam mahārajjanam issariyasirī: "Now, what was his sovereign power? The splendour of the lordship of two great kingdoms consisting of 300 *yojanas*." (*Dīgha-nikāya*, 2, 9, op. cit. ed. Davids and Carpenter, 1, 148.) (*JRAS.*, 1907, p. 643; see also *ibid.*, pp. 641-56.)

conclusion that, while we can obtain satisfactory results from the statements about countries in the Buddhist books, if we interpret the statements as denoting areas,¹ the statements in the same works about the cities are gross exaggerations, if not absolutely imaginative. Is it possible that they are really imaginative, like (of course) the assignment of 16,000 villages to the Videha country, and that they were made in rivalry of tales about Babylon itself, which seems to have been well known to the ancient Hindus under the name of Baveru ? ”² According to the interpretation proposed by me no difficulty arises. Videha may certainly have contained 16,000 villages, provided ‘village’ be taken in the sense of ‘survey village’ or ‘estate’. As regards the figures given in the *Jātakas* for the length and breadth of Madhya-deśa,² which have been regarded as “impossible” by Dr. J. F. Fleet, it may be noted that his criticism appears to have been largely due to misinterpretation of the text, which gives the length as 300 *yojanas* and the breadth as 150 and not 250 (since *aḍḍha-tiyāni-satāni* cannot possibly be here interpreted as 250: the meaning is “half of 300”, i.e. 150). In any case there seems to be no mathematical mistake in the figures, as Dr. Fleet evidently thought. Moreover, before we decide these figures to be “impossible”, we must satisfy ourselves, firstly, as to what extent of country was understood at the time to fall within the limits of the

¹ Ibid., p. 649.

² So āyāmato tīni yojanasatāni vitthārato aḍḍhatiyāni parikkhepatō navayojanasatāni: “It is 300 *yojanas* in length, 250 [should be 150] in breadth, and 900 in perimeter” Āyāmato tiyojanasate vitthārato aḍḍhati (v. 1, teyya) yojana-sate parikkhepatō navayojanasate majjhima-padese. Note on this by Dr. Fleet: “But this is still less analogous to the statement which we have under consideration. Moreover, its details are, from any point of view, impossible.” (*J.R.A.S.*, 1907, p. 644.)

Note.—No doubt the expression *aḍḍha tiyāni satāni* is generally used in Aśoka's inscriptions in the sense of 300 less by half a hundred (= 50). At the same time it is quite clear that the compiler of the *Jātaka* story meant by *aḍḍha tiyāni satāni* only half of three hundred, i.e. 150. Whether in his time this expression began to be used in a different sense or he committed a mistake is a matter which requires further investigation.

name Madhyadeśa, and, secondly, as to the length of the particular *yojana* intended. Again, it is possible that the figures were merely based on the number of days taken by pilgrims journeying from one end of the country to the other while visiting sites of pilgrimage; and we know how intricate and diverse were both the system of pilgrimage and the routes followed by pilgrims.

II. THE ADMINISTRATION OF A JANAPADA

If the interpretation given to the word *janapada*, as meaning a small territorial division, be accepted, we can pursue our inquiries in connexion with the administration of Ancient India. There is no doubt that in the time of Kautalya the *janapada* was the unit of local administration. The area under its jurisdiction on an average was 10 square *yojanas*. As far as its administration was concerned, there were three classes of servants belonging to three different departments, (1) Military, (2) Revenue, and (3) Police. The *gaulmika* and *gaṇa* were perhaps connected with the officers commanding *gulma* and *gaṇa* squadrons, their duty being to protect the country against enemies, wild people, and thieves; the *grāmika*, *daśin*, *śatin*, *sahasrādhipati* and *maṇḍala* were perhaps connected with the collection of the revenue; the *gopa* and the *sthānika* probably belonged to the police and helped the officers of the revenue department in carrying out their duties.

1. Military Department

1. *Gulma*. According to the *Manu-smṛiti*, there should be a *gulma* for from two to five *grāmas*, and a *saṃgraha* for one hundred *grāmas*.¹ The strength of a *gulma* was supposed to

¹ Dvayos trayāpāṃ pañcānāṃ madhye gulmaṃ adhiṣṭhitam |
Tathā grāmasātānāṃ ca kuryād rāstrasya saṃgraham. 114.
Grāmasyādhipatiṃ kuryād daśagrāmapatiṃ tathā |
Viṃśatiśaṃ śateśaṃ ca sahasrapatiṃ eva ca. 115.
Grāme doṣān samutpannān grāmikaḥ śanakaiḥ svayam |

amount to nine elephants, nine chariots, twenty-seven horses and forty-five soldiers.¹ Traders hired soldiers from this force, and paid a fixed charge called *gulma*.² Sometimes tolls were collected at the headquarters of the *gulma*. The secret police took their orders from this body to guard the country and watch persons of suspicious character.³ The King's taxes and other dues were first collected at the *gulma* headquarters, where there was also a prison where thieves, robbers, and suspects were kept in custody.

2. *Gaṇa*. For the protection of a quarter of a *janapada*, a squadron called *gaṇa*, nominally consisting of twenty-seven elephants, twenty-seven chariots, eighty-one horses and 135 foot soldiers,⁴ was maintained under an officer, perhaps called *gaṇanāyaka* or *gaṇapaka*, or *gaṇa*. I suspect, however, that these figures were the strengths 'on paper'. In the Nāsik Cave Inscription No. 15, Rehila is mentioned as *gaṇapaka*.⁵ Dr. Bühler took *gaṇapaka* to mean "protector or leader of a *gaṇa*" and the *gaṇa* to mean a body of troops consisting

Śaṃsəd grāma-daśeśāya daśeśo viṃśatīśine. 116.

Viṃśatīśas tu tat sarvaṃ śateśāya nivedayet |

Śaṃsəd grāma-śateśas tu sahasra-pataye svayam. 117.

Yāni rāja-pradevāni pratyahaṃ grāmavāsibhiḥ |

Anna-pānendhanādīni grāmikas tāny avāpnuyāt. 118. (*Manu-smṛti*, vii, 114-18.)

Daśi kulam tu bhuñjita viṃśi pañca kulāni ca |

Grāmaṃ grāmaśatādhyakṣaḥ sahasrādhipatiḥ puram. (Ibid., vii, 120.)

¹ Narāṇaṃ pañca-paṇicāśad eṣā pattir vidhiyate |

Senāmukhaṃ ca tistras tā gulma ity abhiśabditaṃ. (*Mahābhārata*, v, 5,270.)

² Para-viśaye tu paṇya-pratipaṇyayor argha-mūlyam ca āgamayya śulka-vartanyativāhaka-gulma-taradeya-bhakta-bhāga-vyaya-śuddham udayaṃ paśyēt. (Kauṭalya, *Artha-śāstra*, p. 99.)

³ Mā gulmādhikārikaiḥ saṃyamita-karacaraṇo rājakulaṃ praveśyase. (p. 117.)

Puruṣaḥ. Jayatu kumāraḥ. Ārya gulmasthānādhikṛto dīrgharakṣo vijñāpayati. Eṣa khalv asmābhiḥ katakān niṣkrāmaṇaṃ agrhitaṃ mudraḥ salekhaḥ puruṣo grhītaḥ. Tat pratyakṣikaroty enam ārya iti. (*Mudrā-rākṣasa*, ed. Tattvaviveka Press, 1916, p. 123.)

⁴ See *Gaṇa* in Böhtlingk and Roth's *Sanskrit Wörterbuch*, vol. ii (1856-8), p. 635.

⁵ Duhitā gaṇapaka rebhilasya bhāryayā gaṇapakasya viśvavarmasya. . . . (*Bomb. Gaz.*, vol. xvi, p. 579.)

of three *gulmas* or battalions. Dr. Bhagavānalāla Indrajī regarded *gaṇapaka* as a title. It appears to me that the word *gaṇapaka* stood for the head of a *gaṇa* and the *gaṇa* for a territorial division. As the protection of the *gaṇa* formed one of the functions of the *gaṇa* squadron, Dr. Bühler's interpretation of the term seems correct, though it does not include all the aspects of a *gaṇapaka*'s office. He was not merely a military leader, as Bühler suggests, but also the hereditary civil head of the *gaṇa* government.

Some opposition to this interpretation of *gaṇa* is naturally to be expected from those writers who believe that *gaṇa* denoted some democratic form of government. The only difficulty that arises is from the fact that the words used for territorial divisions are also used for the people living therein (e.g. *kula*, *grāma*, *janapada*, *maṇḍala*, *gulma*, etc.). There is no doubt that in ancient times *gaṇa* meant an aggregate of *kulas*¹ as well as an aggregate of *grāmas*, or estates. In section (*prakaraṇa*) 173 Kauṭilya uses *gaṇa* in the limited sense of a territorial division: *gaṇavāsin* means there a person living in a *gaṇa*.² The origin of all the theories advanced to prove the existence of some democratic form of government in Ancient India is probably due in great measure to a misunderstanding of the social position and political powers of the classes of people alluded to under such titles as *kula*, *gaṇa*, *rājan*, *bhoja*, etc. It is to be regretted that some passages alluding to these classes are only partially quoted and others interpreted in a sense that cannot correctly be attached to them. Take for instance the *gaṇarāyāni* or *gaṇarājyāni* of the *Ācāropāṅga-sūtra*.³ The expression was used there to denote merely some privileged classes of

¹ Kulānām hi samūhas tu gaṇaḥ samprakirtitaḥ. (Kātyāyana, *Vitramitrodaya*, p. 426.)

² Sārtha-gaṇavāsibhir ātivāhikāiḥ kanyāvāhikair aśvapaṇya-vyavahāribhir upakaraṇaharakair dhānyakretrvikretrbhir vā. (The *Artha-śāstra* of Kauṭilya, p. 403.)

³ Arāyāni vā gaṇarāyāni vā juvarāyāni vā dorajjāni vā verajjāni vā viruddharajjāni vā. (*Ācāropāṅga-sūtra*, ii, 3, 1, 10.)

people, like the *rājānakas* of the *Rāja-taraṅgiṇī* or the Chamba State inscriptions.¹ The commentator of the *Aupapātika-sūtra* mentions eighteen *gaṇarāyas* of Ceṭaka-rāja, all of whom were titled people of the State.² In a similar way, the text of a dialogue between Nārada and Vāsudeva has been misinterpreted.³

It is interesting to note that in Muhammadan times the *gaṇa* was maintained as a territorial division and was sometimes described by the word *pargana* (*para-gaṇaḥ* or *pra-gaṇaḥ* of the Saṃskṛta) and sometimes by the fiscal term *mahāl*. To understand the meaning of these terms, it is necessary to look into the arrangement of territorial and fiscal divisions adopted by the Emperor Akbar. He divided his empire into twelve *śūbas*, and these into 127 *sarkārs*, and 2,737 *parganas*.⁴ It appears that in the time of Akbar the old Hindu countries were divided, on an average, each into two parts called *sarkārs*. This splitting up of the old territorial divisions may have been done with a view to reduce the power of the local rulers. As stated already, Ancient India contained eighty-four countries (*deśa*). As Southern India was not under Akbar's rule, we may perhaps estimate that his Indian empire comprised about sixty-three of the old Hindu countries (*deśas*), deducting twenty-one countries

¹ *The Antiquities of Chamba State*, part i, pp. 110-19.

² Evaṃ dupaḍo āreṇaṃ rāṇṇā khattiyā māhaṇā bhaḍā johā pasatthāro mallāi lecchāi lecchāiputtā aṇṇe ya bahave rāisara talavara māḍaṃviya koḍṇṇi aibbha seṭṭhiseṇā vāisatthavāhapabbhitiyo. . . . (The *Vivṛti* of Abhayadeva Sūri: 'Mallāi lecchāitti mallakino lecchakinaś ca rājāviśeśāḥ, yathā śrūyante ceṭakarājasyaśtādaśagaṇarājāḥ "navamallāi navalecchāi kāsī-kosalagā aṭṭhārasa gaṇarāyāṇo" iti, 'rāisara talavara māḍaṃviya ibbha seṭṭhi seṇāvai satthavāha pabbhiti'tti rājāno-māṇḍalikā īśvara-yuvarājāḥ, aṇimā dyāisvaryayuktā iti kecit, talavarāḥ parituṣṭa-narapati-vitirṇa-paṭṭa-bandha-vibhūsitāḥ rājasthānīyāḥ māṇḍavikāḥ māṇḍapādhipāḥ kaṭṭumbikāḥ katipaya-kuṭṭumbapabbhavo'valagakāḥ ibhyāḥ mad-dravya-nicayāntarito mahebbho na dṛśyate, śreṣṭhinaḥ śrīdevatādhyāsita-sauvarṇa-paṭṭa-vibhūsitottamāṅgāḥ senāpatayaḥ nrpati-nirūpitās catu-raṅga-sainya-nāyakāḥ sārthavāḥ sārthanāyakāḥ. . . . (*Aupapātika-sūtra*, fol. 58.)

³ *Hindu Polity*, by K. P. Jayaswal, pp. 191-7, 125-30.

⁴ *Ain-i-Akbari*, vol. ii (Jarrett's translation), pp. 115 f.

situated in Southern India from the total number (eighty-four). Akbar divided his empire into 127 *sarkārs*, which would mean two *sarkārs* on an average for each of the old countries (*deśas*). No change appears to have been made as far as the *janapada* and *gaṇa* were concerned. If we divide 2,737 by 127, we see that each *sarkār* contained on an average about twenty *parganas*; so that each of the old Hindu countries would have comprised about forty *parganas*. It has been calculated above that according to Kauṭalya's *Artha-śāstra* and other Saṃskṛta works the number of *janapadas* averaged about ten per country. As each *janapada* was divided into four *sthānas*¹ or *gaṇas*, we shall not be far out if we estimate that each ancient Hindu country contained on the average about forty *sthānas* or *gaṇas* or *parganas*.

2. Revenue Department

1. *Gaṇa and varga*. It appears probable that in the revenue department the numbers of families, or *kulas*, were entered under the head *gaṇa*, and the sources of revenue under the head *varga*. According to the *Artha-śāstra* of Kauṭalya the number of *vargas* was seven, viz., (1) fort (*durga*), (2) state (*rāṣṭra*), (3) mines (*khanī*), (4) vegetable and flower garden (*setu*), (5) forest (*vana*), (6) pasture (*vraja*), and (7) trade routes (*vanīk-patha*).² Kāmandaka made them eight by adding colonization (*śūnyānām ca niveśanam*).³ After taking possession of the Hindu kingdoms the Muhammadans perhaps adopted the same fiscal arrangements, calling the *vargas* *maḥals*, where this word is used in the sense of a head of taxation furnishing revenue to the government.

¹ Samāhartā caturdhā janapadam vibhajya. . . . (*Artha-śāstra* of Kauṭalya, p. 141.)

² Samāhartā durgam raṣṭram khanīm setum vanam vrajam vanīkpatham cāvekṣeta. (*Artha-śāstra* of Kauṭalya, p. 59.)

³ Kṛṣir vanīkpatho durgam setuḥ kuñjara-bandhanam |
Khanyākaro vanādānam, śūnyānām ca niveśanam. 77.
Aṣṭavargam imam sādhu svasthavṛttam vivarddhayet |
Jivanārtham ihājīvyaiḥ kārayet karaṇānvitaiḥ. 77.

(*Kāmandakiya-nīti-sāra*, p. 82.)

The ancient *janapada* probably contained no more than four or five *vargas* on an average. Trade routes (*vanik-patha*), mines (*khanī*), and forests (*vana*, i.e. containing valuable products such as elephants, timber, etc.) probably never all existed simultaneously in one *janapada*. No doubt each *janapada* contained agricultural estates (*rāṣṭra*), pastures (*vraja*), and a fort (*durga*, i.e. the administrative headquarters). Taking this into consideration, it is probable that the average number of *vargas* in a *janapada* was much the same as the number of *ganas*, and possibly this may account for the fact that the number of *maḥals* under the early Mughal emperors approached that of *parganas*. For instance, it will be noticed that when Todar Mal's rent-roll was prepared the numbers of *parganas* and *maḥals* often closely corresponded. In fact *parganas* and *maḥals* seem to have been often confounded.¹

2. *Collection of Revenue.* It has already been mentioned that the collection of revenue was entrusted to the charge of officers called *daśin*, *śatin*, *sahasrādhipati*, *maṇḍala*, etc. Taking the word *grāma* to denote a survey village or an estate, *daśin*, *śatin*, *sahasrādhipati* would mean an officer over ten, one hundred, and one thousand estates respectively. If a large village consisted of one hundred estates, the officer in charge of the collection of revenue from the estates would be called *śatin*. There might be two or three *śatins* in the case of a very large village, approaching to a town.² Apart

¹ According to H. H. Wilson, the word *maḥāl* is used in the following meanings: "A province, a district, as the *Jangal-maḥāls*, on the west of Bengal; a division of a *Taḍlluk*, or district, yielding revenue according to assessment. . . . Under the Mohammadan government the term was also applied to a head or department of miscellaneous revenue derived from a tax on some particular class of things or persons . . . so in Karnata, *Mahālu* (. . .) meant revenue, or sources of revenue, chiefly territorial, but comprising other objects." (H. H. Wilson's *Glossary*, 1855, pp. 318-19.) The Arabic word is properly *maḥall*. In this thesis I have used the current term, *maḥāl*.

² *Note.*—Some light seems to be thrown on this subject by the names of village officers in the district of Maldah, mentioned in Sir W. Hunter's *Statistical Account of Bengal*. "The system of mandals and satums has existed in this district from the time of the Muhammadan conquest. A

from these officers, there were prominent persons in each village belonging to the *sāmanta* class, called *maṇḍala*, *cakradharin*, *cakravartin*, *gaṇarājan*, etc. Possibly they were also in charge of revenue collections as far as the people belonging to their class were concerned. The crown lands were entrusted to the charge of an officer called *sītādhyakṣa*.¹ This officer has been mistaken by some writers for the superintendent of agriculture. It appears to me that he was nothing more than a mere overseer, and not highly paid. According to the *Artha-śāstra* of Kauṭalya, he was allowed to spend altogether 1,000 *paṇas* a month.² He employed *grāma-bhṛtakas*, or village servants, day labourers and slaves and prisoners to get the state lands cultivated.³ Sometimes he let these lands to cultivators, who were obliged to supply him, and occasionally other officers also, with vegetables, grain and other produce without payment.

3. Police Department

According to the *Kamandakīya-nīti-sāra*, the people should be protected from the oppression of (1) servants employed by the king and feudal chiefs (*āyuktaka*), (2) thieves (*cora*), (3) enemies (*para*), (4) court-favourites (*rāja-vallabha*), and (5) from the greed of landowners (*prthivīpati-lobha*).⁴

Kauṭalya also advises a ruler to avoid harassing the people by imposing oppressive fines and taxes and forced labour ;

satum is a head rayat. At the present day every village has a mandal, and in large villages there are two or three satums under him. The mandal is appointed by the Zamindar, with the concurrence of the rayats." The *satum* appears to be the *śatin* of Manu. (*A Statistical Account of Bengal*, vol. vii, p. 66.)

¹ The *Artha-śāstra* of Kauṭalya, pp. 115-18.

² *Sarvādhyakṣāśca sāhasrāḥ*. (*Ibid.*, p. 247.)

³ *Ṣaṇḍa-vāta-go-pāla dāsa-karmakarebhyo yathāpuruṣa-pari-vāpam-bhaktam kuryāt. Śaṇḍa-panikam māsam dadyāt. Karmānurūpam kārubhyo bhaktavetanam.* (p. 118.)

Bahu-hala-parikṛṣṭāyām svabhūmau dāsa-karma-kara-daṇḍa-pratikarṭr-bhir vāpayet. (p. 115.) (*The Artha-śāstra* of Kauṭalya.)

⁴ *Āyuktakebhyas corebhyah parebhyo rājavallabhāt. Prthivīpati lobhācca prajānām pañcadhā bhayam.* (*Kamandakīya-nīti-sāra*, p. 149.)

he urges him to protect herds of cattle from thieves and wild beasts, and the highroads from molestation by courtiers, workmen, robbers and outpost guards; and he also advises him to avoid taking possession of any country liable to attack from enemies and wild tribes.¹ The people were evidently not well protected, and, in order to avoid the cupidity of government servants, they began to hoard their money and live in a poor style.² In the time of Mahāvīra, however, Haribhadra Sūri tells us in his *Kalpa-sūtra* that the people were free from troubles and calamities; they were not overburdened by heavy tolls and taxes, and were not harassed by the police and soldiers employed in collecting taxes and dues. There were also no soldiers to summon them to arms.³ It would seem probable from this statement that Haribhadra was comparing the favourable rule of Mahāvīra with the evil conditions existing in his day.

From the *Artha-śāstra* of Kauṭalya we learn that each *janapada* was divided into four *sthānas*, and each *sthāna* was governed by a *sthānika* (corresponding to the modern *thānādār*, or *dārogha*). In that work the words *sthāna* and *durga* (fort)

¹ Para-cakrāṭavi-grastaṃ vyādhi-durbhikṣā-pīḍitam
Deṣaṃ parihared rājā vyayakrīḍās ca vārayet.
Daṇḍa-viṣṭi-karāvādhaiḥ rakṣed upahatāṃ kṛṣim
Stena-vyāla-viṣagrāhaiḥ vyādhibhīś ca paśuvrajān
Vallabhaiḥ kārmikaiḥ stenair antapālaiś ca pīḍitam
Śodhayet paśusaṅghaiś ca kṣiyamāṇa-vaṇikpatham.

(The *Artha-śāstra* of Kauṭalya, p. 49; English translation, p. 52.)

² Rājabhayāc caurabhayād vā bhūmiṣṭhaṃ dravyaṃ dhārayati.
(*Mṛcchakaṭika*, p. 103.)

Āyur vittaṃ ghaecchidraṃ . . . nava-gopyāni sarvadā. (*Dvātrīṃśat-puttalikā-siṃhāsana*, p. 69.)

³ Ussukkaṃ ukkaṭaṃ ukkiṭṭhaṃ adiḥkaṃ amijjaṃ abhaḍappavesaṃ
adaṇḍakodaṇḍimaṃ adharimaṃ . . . (The *Vīrti* of Haribhadra Sūri:
Ussukkaṃ (ucchulkaṃ) śulkaṃ vikretavya-krayāṇakaṃ pratimaṇḍapi-
kāyāṃ rājadeyaṃ grāhyam. Ukkaraṃ (utkarāṃ) karo gavādīn prati
prativarasaṃ rājagrāhyaṃ dravyaṃ tena rahitaṃ . . . ukkiṭṭhaṃ (utkrṣṭaṃ)
adiḥkaṃ (adeyāṃ), amijjaṃ (ameyāṃ), abhaḍapavesaṃ = nāsti kasyāpi
grhe rājādeśa-dāpanārthaṃ bhaṭṭānāṃ rājapurusāṇāṃ praveśo yatra sā . . .
adaṇḍa kodaṇḍimaṃ = daṇḍo yathāparādha-rājagrāhyaṃ dhanam,
kudaṇḍo mahaty aparādhe alpaṃ rājagrāhyaṃ dhanam, tābhyāṃ
rahitaṃ . . . (*Kalpa-sūtra*, p. 253.)

are generally coupled together,¹ and we may, therefore, presume that each *sthāna* generally contained a fort called *sthānīya*, which, again, was garrisoned by a force—half soldiers, half police—who are frequently referred to in copper-plate grants and other inscriptions as *cāra-bhāṭas*, *chāṭa-bhāṭas*, *chāḍa-bhāṭas*, *chāṭas* and *bhāṭas*, etc.²

It has already been stated that the area under the jurisdiction of the *sthānīya* (*thānā*) was perhaps called *gaṇa* (= modern *pargana*). The *sthāna* is mentioned in the *Praśna-vyākaranāṅga* under the name of *cāraka-vasati*, that is the station of *cāṭas* and *bhāṭas*, and is described as a very terrible place. A graphic account is there presented of the ancient

¹ Janapadas sarvakarmaṇām yonih; tataḥ prabhavaḥ; tasya *sthānaṃ* ātmanaś ca āpadi *durgam*. (p. 307.)

Durge hi kośa daṇḍotpattir āpadi *sthānaṃ* ca janapadasya. (p. 323.)

Āpadyaprasāro vā janapada-madhye samudaya-*sthānaṃ* *sthānīyaṃ* nivesayet. (p. 51.)

Aṣṭaśata-grāmyā-madhye *sthānīyaṃ*, catuśśatagrāmyā droṇamukhaṃ ... daśa-grāmi-saṃgrahaṇa samgrahaṇaṃ *sthāpayet*. (p. 46.)

(The *Artha-śāstra* of Kautalya.)

It is interesting to note that the old word *sthāna* has survived in the word *thānā*, of which H. H. Wilson gives the following definition :—

“ A station, a military post, a police-station; under the native governments it was a military post or garrison, a place, sometimes with a small fort, where a petty officer, with a small irregular force, was posted to protect the country, preserve the peace, and to aid in making the collections: under the present system it properly applies, in Bengal, to the police jurisdiction into which the Zilas were divided, each *Thānā* averaging about twenty miles square, under a *dārogha* and establishment: in the Upper Provinces the site of a *Thānā* is regulated by consideration of area and population, and generally corresponds with the divisions of a *Pargana* (Beng. Reg. 1792, No. xlix, and Reg. xxii, 1793): its common use denotes any police-station, whether under a *dārogha* or a subordinate officer.” (H. H. Wilson's *Glossary*, 1855, p. 518.)

² The name has survived up to modern times in the state of Chamba as *cār*: “ This is the title of the head of a *parganā*,” writes Dr. Vogel, “ who is responsible for the internal management of his district, for the collection of revenue and the apprehension of criminals. It belongs to the duties of the *cār*, in case the head of the State, his relatives or officials—and in modern times European travellers also—visit his *parganā*, to collect load-carriers and supplies. It should be remembered that the carrying of loads on such occasions is forced labour (*bēgār*) paid according to a fixed rate out of which the *cār* receives his commission.” (*Antiquities of Chamba State*, p. 132.)

police-station,¹ as will be seen from the following extract.
[The translation is somewhat free.]

“ In similar manner some persons caught in the act of theft by the *cārabhaṭas* employed for arresting thieves were, on being seized, beaten with sticks, bound with ropes and taken quickly to the police-station (*cāra-ka-vasati*). There they were thrashed with whips, and threatened by abuse. Seized by the neck, they were cast into a prison just like a hell. The *gaṭṭhika* then began to frighten and abuse them. They were stripped of their own clothes, and rags put on them. Thereupon the prisoners began to beg for mercy (*utkoḍālaṇṇa*) but the police put them on the rack, or handcuffed them, or bound them with hair ropes or iron chains, or put leg-fetters on them, or tied them up in various other ways. The police tore some to pieces on the rack, or pressed them between two planks; others they shut up in iron cages or in pits or blind wells. Some they tied to posts; others were broken

¹ Taheva kei parassa davvaṃ gavesamāṇā gahitā ya hayā ya baddharud-dhā ya turiyaṃ atidhāḍiyā puravaraṃ samappiyā coraggaha-cāra-bhaḍa-cāḍukarāṇa tehi kappaḍappahāra-niddaya-ārakkhiya-khara-pharusa-vayaṇa-tajjaṇa-galac challucchaṇṇhiṃ vimaṇā cāragavasahiṃ pavesiyā niraya-vasahi-sarisam tatthavi gomiya-ppahāra-dūmaṇa-nibbhacchaṇa-kaḍuya-vadaṇa-bheṣaṇaḍa-bhayābhibhūya akkhitta-niyamsaṇā malina-damḍi-khamḍa-nivasanaṇ ukkoḍālaṃcapāsa-magganaparāyaṇehiṃ (dukkha-samudiraṇehiṃ) gommiya-bhaḍehiṃ vivihehiṃ bamdhaṇehiṃ, kim te ?, haḍinigaḍa-vālarajjuya kudamḍaga-varatta-loha-samkala-hattham duya-bajjha-paṭṭa-dāma-kaṇikkodaṇehiṃ annehi ya evamādi ehiṃ gommika-bhamḍo vakaraṇehiṃ dukkhasamudiraṇehiṃ samkoḍamoḍaṇṇhiṃ bajjhaṃti mamḍapunnā sampuḍa-kavāḍa-lohapamjara-bhūmighara-niroha-kūva-cāraga-kilagaḍi-ya-cakka-vitata-bamdhana-khambhālaṇa-uddhacalaṇa-bamdhana-vidhammaṇṇhi ya viheḍayantā avakoḍaka-gāḍha-urasirabaddha-uddhapūritaphuraṃti - urakaḍagamodaṇṇameḍaṇṇhiṃ baddhā ya nīsaṃtā sisāvedha uruyāvalacappaḍagasamḍhi bamdhanatattasālāga-sūyākoḍaṇṇhi tacchaṇavimāṇaṇṇhi ya khāra-kaḍuya-titta nāvaṇajāya-ṇākāraṇasayaṇi bahuyāṇi pāviyaṃtā urakkhoḍiḍi-nnagāḍhapellanaaṭṭhi-samḍhaggasupamsuligā galakālakāloha-damḍa-ura-udara-vatthi-paripillitā-macchamṭahiyayasamcu-ṇṇiyaṃgamamgā āṇattikiṇkarehiṃ keti avirāhi-yaveriḍhiṃ jamapurisaṇṇiṇehiṃ pahayā te tattha mamḍapunnā caḍa-velāvajjhaḍṭa-pārāṇchivakasalatavarattanettappahārasa-yatāliyaṃgamamgā kivaṇā lamḍamṭacammavaṇaveyaṇavimuhi-yamaṇā ghaṇa-kotṭi-maniyalajuyala-samḍoḍiyamoḍiyā ya kīraṃti niruccārā ēyā annā ya evamāḍio. . . . (*Prasnavyākaraṇaṇṇa*, fol. 53-4.)

upon the wheel; others were forced to embrace hot iron posts; others hung by the feet, head downwards; others had their heads bent down and tied to their chests; others had their mouths filled with earth, and nosebags tied over their faces. Some had their entrails or their lungs torn out; others were pierced with hot needles or iron rods; and then salt, ashes or the juice of limes rubbed into their wounds. Some had sharp wooden stakes thrust into their breast, and their ribs thus broken; others had iron spikes driven into their breast, belly, anus, or back, causing them the utmost torment and convulsion. Some, arrested for no offence by the police, were bound in various ways, and then flogged with whips until their flesh was torn, and hung in pieces from their limbs, thus suffering intense agony; others had their limbs broken by being pounded with heavy clubs. Some were prevented from performing the offices of nature; others were deprived of their power of speech (? by having their tongues cut out)"

The ancient sthāna (thānā) : a place of terror owing to cāṭas and bhaṭas stationed there.

From the above-quoted passage it is clear that the ancient *sthāna*, or *thānā*, was a place of terror, and that the *cāṭas* and *bhaṭas* located there to protect the *pargana* were a terror to the populace. Although their duty was to guard the inhabitants and arrest thieves, robbers and persons of suspicious character,¹ they probably used their power to fill their own pockets, and the general opinion was that it would be a good thing if the country were rid of them.² In the *Yājñavalkya-smṛiti* they are mentioned together with thieves

¹ On the duties of *cāṭa-bhaṭas* the following text has a bearing:—*Iyam pallikā cora rājāpattyakārivarjja acāṭa-bhaṭa praveśyā. (EI., vol. No. 21, pp. 219–21.)*

² *Ussukkaṃ ukkaraṃ . . . abhaḍappavesamaḍaḍakodaḍḍimaṃ . . . (Kalpa-sūtra, p. 253.)*

Teṇaṃ kāleṇaṃ teṇaṃ samaeṇaṃ caṃpā nāma nayari hotthā, . . . ukkoḍima, gāyagaṃthi bheya-bhaḍa-takkara-khaṇḍa-rakkharahiya . . . p. 1.

(The commentary:—*utkocaḥ, autkoṭikāḥ, gātragraṃthi-bhedakāḥ,*

and record-keepers (*kāyasthas*).¹ In the *Mṛcchakatika* the friend of the hero remarks in Prakṛta that "Even the most daring and wicked will not dare to go to a place where the *cāṭas*, courtiers, etc., reside."² In the *Piṇḍa-niryukti* the Jain monks are prohibited from taking alms from the hands of *cāra-bhaṭas*.³ The opening sentences of many of the Jain books mention that in the time of Mahāvīra the country of Magadha (or Rājagṛha) was free from these terrible, cruel people, and that owing to this the people were happy and prosperous. The Brāhmaṇas and their tenants were, it appears, protected from the cruelties of these officials by special charter. As a rule it is clearly stated in the grants of land that it was "not to be entered by the soldiers and policemen *a-chāṭa-bhaṭa-praveśa*, also written *a-cāṭa-bhaṭa-praveśa*]"⁴ [and "messengers",⁵ and not to be meddled with by any royal officers [*sarva-rājakīyānām ahastaprakṣepanīyam*, or *rājakīyānām anāṅguli-prakṣepanīyaḥ*]"⁶ and "was free from tolls, taxes and molestations" [*sa-śulka-kara-vādhā-parihāra*].⁷

bhaṭāḥ, cārabhaṭāḥ valātkāra-pravṛttayaḥ taskarāḥ khamḍarakkha = daṇḍapāśikāḥ sūkapālā vā ebhiḥ rahitāḥ.) (*Aupapātika-sūtra*, p. 1.)

(Note.—According to the commentary on the *Aupapātika-sūtra*, *chāṭabhaṭas* or *cāṭabhaṭas* should be derived from the Samskr̥ta *cāra-bhaṭa*. Monier Williams appears to be quite right in understanding *cāṭa* to have the same meaning as *cāra*.)

¹ Cāṭa-taskara-durvṛtta-mahāsāhasikādibhiḥ | Piḍyamānā prajā rakṣet kāyasthaiś ca viśeṣataḥ. (*Yājñavalkya-smṛti*, Vyavahāra, pp. 334-5.)

² Bho vayasya ganikā hasti kāyastho bhikṣuś cāto rāsabhaś ceti yatraite nivasanti tatra duṣṭā api na jāyante, p. 158. (The commentary:—Cāṭaḥ pratārakah, yo viśvāsya paradhanam harati saḥ. "Kṣudra-viśaya-bhoktā" iti Lallā Dikṣitāḥ, *Mṛcchakatika*, p. 158.)

³ Kabvatthiya appāhaṇa dinne annanna gahaṇa pajjattam | khamtiyamaggaṇadinne uḍḍāhapaosa cārabhaḍā. 579.

(the commentary:—Nūnam amī sādhuveṣa-vidambinaś cārabhaṭā iva luṇṭākā na sādhu sadvṛttā iti . . .). (*Piṇḍa-niryukti*, fol. 158-9.)

⁴ *EI.*, vol. iii, No. 8, p. 52; vol. iii, No. 37, pp. 269-70; vol. iii, No. 40, p. 292; vol. xii, No. 23, p. 204; vol. xii, No. 31, p. 267.

⁵ *Ibid.*, vol. iii, No. 8, p. 52.

⁶ *Ibid.*, vol. iii, No. 8, p. 52; vol. iii, No. 30, p. 217; vol. iv, No. 8, pp. 74-5; vol. xi, p. 84; vol. xii, No. 19, p. 145; vol. xii, No. 31, p. 267; vol. xii, No. 34, p. 313.

⁷ *Ibid.*, vol. iii, No. 30, p. 217; vol. xi, No. 11, p. 18; vol. xii, p. 145; vol. xii, No. 34, p. 313.

The term cāṭa discussed

Owing perhaps to misapprehension of the system of administration in force in ancient India, some writers have sought to explain *cāṭa* as flatterer, deriving the word from the Samskr̥ta *cāṭu*, meaning flattery.¹ The Sūrat Plates of Vyāghrasena make it quite clear that the *cāṭas* and *bhaṭas* acted partly as police and partly as military, and were appointed to arrest robbers and persons guilty of high treason.² The Talcher grant of Kulastambha mentions them along with the government employes and grant-holders, and remarks that they always try to please the *rājans*.³ In the *Pinḍa-niryukti* they are described as being inwardly wicked and as following a life unworthy of good men.⁴ Bāṇa also in many places mentions *cāra-bhaṭas* together in one compound, like the *chāṭa-bhaṭas* of the land grants.⁵ According to him also they were hated by the country people on account of their cruelty and greed. In one place he describes them as talking and laughing with the slaves and servants of the nobles after taking plenty of grain from the fields; and in another place he writes that the poor were grumbling at the cruelty and ill-treatment received at their hands.⁶

It appears therefore from the above references that *cāṭas* and *bhaṭas* were persons employed for watch and ward, for collecting revenue, and for arresting thieves and robbers.

¹ *EI.*, vol. xi, No. 17, p. 176.

² *Ibid.*, vol. xi, No. 21, pp. 219-21.

³ *Ibid.*, vol. xii, No. 20, p. 157. "Rājaprasādina cāṭṭa-bhaṭṭa-mahāsā-maṃta-bhoga-janapadādyānadhikaraṇajanān"; vol. xvi, No. 2, p. 14. "Rājarājapuruṣūṭavikacāṭādibhiḥ."

⁴ *Pinḍa-niryukti*, fol. 159.

⁵ *Cāru - cāra-bhaṭā-sainya-nyasyamāna-nāsira-maṇḍalāḍambara - sthūlas - thāsake (Harṣa-carita, p. 229); Caṭula - ḍāmara - cūra - bhaṭa - bharita-bhuvanāntaraiḥ (ibid., p. 232).*

⁶ *Kvacit svecchā-mṛditoddāma-sasya-ghāsa-vighasa-sukha-saṃpannānna-puṣṭaiḥ kekikālaiḥ kilakilāyamānair menṭha-vanṭha-vathara-lambana-esika-luṇṭhaka-ceta-cāṭa-caṇḍāla-maṇḍalarāṇḍiraiḥ stūyamānam. (Harṣa-carita, p. 238.)*

Cirantana-cāṭāparādhāmścābbhidadhānaiḥ. Ibid., p. 238.

Some of them were in the service of estate-owners, and others were under the officers in charge of *parganas* and *janapadas*.

Duties of the cāta

Taking the *cāta* of the land-grants as equivalent to *cāra*, we can form a fair idea of the system of local administration, with the help of Samskr̥ta works relating to law and administration. Hitherto *cāra* has generally been translated 'spy'. 'Policeman' appears to be a more appropriate meaning. *Bhāta* is used in Samskr̥ta for soldier. So the *cāra-bhātas* were persons employed as *chaukidārs*, policemen and soldiers.

As far as the management of a *janapada* was concerned, they were employed by the revenue collector (*samāhartṛ*) to examine the records and ascertain the correctness of accounts in respect of fields, houses and *kulas* (families), and to keep an eye on the coming and going of the people and the movements of secret police employed by the enemy.¹ Some of them probably were stationed at the toll gates, to ascertain the actual quantity and value of the goods exported and imported.² As the country was full of powerful nobles intriguing against each other, each seeking to enhance his own power by bringing weaker estates under his own control, the administration of a *janapada* was not a simple matter. According to the *Mahābhārata* policemen (*cāra*) should be stationed in the markets, parks, places of assembly, streets

¹ Samāhartṛ-pradiṣṭās ca gr̥hatika-vyañjanā yeṣu grāmeṣu praṇihitās teṣāṃ grāmānāṃ kṣetra-gr̥ha-kulāgrāṃ vidyuh. Māna-sañjātābhyāṃ kṣetrāṇi, bhoga-parihārābhyāṃ gr̥hāṇi, varṇa-karmabhyāṃ kulāni ca. Teṣāṃ jaṅghāgrāṃ āyavyayau ca vidyuh. Prasthitāgatānāṃ ca pravāsā-vāsa-kāraṇaṃ anarthyanāṃ ca strī-puruṣāṇāṃ cāra-pracāraṃ ca vidyuh. (The *Artha-śāstra* of Kauṭilya, p. 142.)

² Evaṃ vaidehaka-vyañjanāḥ sva-bhūmijātānāṃ rāja-panyānāṃ khani-setu-vana-karmānta-kṣetrajātānāṃ parimāṇaṃ arghaṃ ca vidyuh. (The *Artha-śāstra* of Kauṭilya, p. 142.)

Evaṃ vaidehaka-vyañjanāḥ . . . parabhūmijātānāṃ, vāri-sthalapatho-payātānāṃ sāra-phalgu-panyānāṃ karmasu ca śulka-vartanyātivāhikagulma-taradeya-bhāga-bhakta-panyāgāra-pramāṇaṃ vidyuh. . . . (Ibid., p. 174.) Evaṃ samāhartṛ-pradiṣṭās tāpasa-vyañjanāḥ karṣaka-gorakṣaka-vaidehakānāṃ adhyakṣāṇāṃ ca śaucāśaucaṃ vidyuh. (Ibid., p. 143.)

and gardens, since they were responsible for the public security.¹ They were divided into (1) regular (*agūḍha*) and (2) secret (*gūḍha*) police. Both were remunerated either by grants of land or capital, i.e. money or goods.

According to Kauṭilya the *cāras* (policemen) connected with the management of estates (*grāmas*) were to be granted rent-free lands, those stationed at toll-gates and markets to be provided with capital to live as traders, and those living in the guise of ascetics (i.e. the spies) to be furnished with both land and capital.² It would appear that the administration of the country was not satisfactory, even after posting policemen at all these places, owing to the dishonesty of the government officials. Sometimes the underlings fleeced the tenants and cultivators in order to increase the revenue receipts, and sometimes they filled their own pockets and in their accounts entered less than what had actually been realized. All kinds of details were required of them, but they managed to retain their illegal income without being detected.³

Administration of a town and the extent of its jurisdiction
(*Pura-rājya*)

From the above references, it seems clear that a *janapada* was divided into four *sthānas* (*thānās*) for administrative,

¹ Cārāṁś ca vidyāt prahitāt pareṇa bharatarśabha | Āpaṇeṣu vihareṣu samavāyeṣu vithiṣu. 11. Ārāmeṣu tathodyāne paṇḍitānām samāgame | Veṣeṣu catvare caiva sabhāsvāvasatheṣu ca. 12. Evaṃ vihanāyāc cāreṇa paracāraṇ vicakṣaṇaḥ | Cāre ca vihite sarvaṃ hatam bhavati bhārata. 13. (*Mahābhārata. Śānti-parvan*, 68, 11-13.)

² The above inference is drawn from the following text:—Upadhābhīś śuddhāmātyavargo gūḍhapuruṣān utpādayet. Kāpatikodāsthita-grhapatika-tāpasa-vyañjanān satri-tikṣṇa-rasada-bhiksukīś ca. p. 18.

Pravrajyā pratyavasitaḥ prajñāśauca-yukta udāsthitaḥ. Sa vārtā-karma-pradiṣṭāyām prabhūta-hiraṇyāntevāsī karma kārayet. Karmaphalāc ca sarva-pravrajitānām grāsācchādanāvasathān pratividadhāt. . . . p. 18.

Karṣako vṛtti-kṣiṇaḥ prajñā-śauca-yukto grhapatika-vyañjanaḥ. Sa kṛṣi-karma-pradiṣṭāyām bhūmāv iti. Samānaṃ pūrveṇa. p. 18. (*The Artha-śāstra* of Kauṭilya.)

³ The above view is based on the following text:—Matsyā yathāntaḥ salile caranto | Jñātum na śakyāḥ salilam pibantaḥ | Yuktās tathā kārya-vidhau niyuktāḥ | jñātum na śakyā dhanam ādadānāḥ. (*Ibid.*, p. 60.)

See also *Viśvagunadarśa-campū* (1899 ed.). pp. 85-6.

and into four *gaṇas* (*parganas*) and *vargas* (*mahāls*) for fiscal purposes ; and all these subdivisions were under the officer called *samāhartṛ*. The management of a town was entrusted to an officer called *nāgaraka*.¹ As in the case of rural areas, the towns were probably similarly divided up into *gaṇas* and *sthānas*.² A question arises as to the extent of the jurisdiction of a *nāgaraka*. Were the suburbs included within the limits of the jurisdiction of this officer ? My inquiries lead me to think that suburbs were considered to be part of a town, and were under the same administration. If a theft occurred near the town, inquiry was made by the *nāgaraka*, and not by the *sthānika* or *pradeśṭṛ* of a rural subdivision.

Take, for instance, the city of Benares. In ancient times its jurisdiction extended 5 *krośas*, or 1 *yojana*, all round the temple of Madhyameśvara, while the city proper was considered to extend only 1 *krośa* round that temple.³ Hiuan Tsang, it seems, gave the figures relating to the city proper. According to the *Linga-purāṇa* and the *Skanda-purāṇa* the length of Benares was about 2 *krośas*, or 20 *li*, while Hiuan Tsang gives between 18 and 19 *li*.⁴ In the same way the jurisdiction of Gayā lay within a radius of 5 *krośas*, while the city proper (*Gayā-śīrṣa*) seems to have had a radius of only 1 *krośa*.⁵ It appears that the radius of the jurisdiction (*pura-rājya*) of a first-class city was generally fixed at 5 *krośas* or 1 *yojana* ; because many of the sacred

¹ The *Artha-sāstra* of Kauṭilya, pp. 143-7.

² Samāhartṛvan nāgarako nagaram cintayet. Daśakulim gopo, viṃśatikulip catvāriṃśatkulim vā. . . . Evaṃ durgacaturbhāgaṃ sthānikaś cintayet. Ibid., pp. 143-4.

³ Pañca-krośātmakam liṅgaṃ jyotirūpaṃ sanātanam. (*Skanda-purāṇa-Kāśīkhaṇḍa*.)

Mukti-kṣetra-pramāṇam ca krośam krośam ca sarvataḥ | Ārabhya liṅgād asmāc ca puṇyadān madhyameśvarāt. (Ibid.) (*Tristhalī-setu*, p. 103.)

⁴ *BRW.*, vol. ii, 1884 ed., p. 44.

⁵ Sā gayeti suvikhyātā triṣu lokeṣu viśrutā | Pañca-krośamitā sā ca parvatāḥ samalamkṛtā. 44. (*Bhaviṣyad-uttarapurāṇa-gayāmāhātmya*.)

Pañca-krośam gayākṣetram krośam ekam gayāśīrah. (*Vāyupurāṇa-gayāmāhātmya*.) (*Tīrthāvalī-prabandha*, pp. 209-10.)

cities, such as Puruṣottama-kṣetra,¹ Prabhāsa-kṣetra,² Puṣkara,³ Ayodhyā,⁴ Prayāga,⁵ Haripura,⁶ Karavīra,⁷ Gayā, Kāśī, etc., were considered to be holy ground within those limits. The cities proper, on the other hand, according to statements made in the Purāṇas, extended from a central point to a radius of from 1 to 2, or $2\frac{1}{2}$ krośa ; and Hiuan Tsang gives figures varying from about 10 to 20 li. The accounts given by these two authorities may be regarded as in substantial agreement.

¹ Pañcakrośam idaṃ kṣetram samudrāntarvyavasthitam. (*Skanda-purāṇa-Kṣetramāhātmya*, ibid., p. 85.)

² Nāmaprabhāseti yadā sarvatra jagati śrutam |
Samantāt pañcakrośākhyam puṇyakṣetram hi tat smṛtam.

(*Sarasvatī-māhātmya*, ibid., p. 125.)

³ Yojanābhyaṃtare tāvat puṇyam puṣkara-saṃjñakam. 15. (*Padma-purāṇa-puṣkaramāhātmya*, ibid., p. 158.)

⁴ Sahasradhārām ārabhya yojanam pūrvato diśi | Paścime ca tathā
devi yojanam sammato'vadhiḥ. 66. . . . Etat kṣetrasya saṃsthānām
harer antargrahaṃ smṛtam. 67. (*Rudra-yāmala-kṣetramāhātmya*, ibid.,
p. 166.)

⁵ Pañcakrośātmakam kṣetram ṣaṭkoṇam viśvatonnatam |
Prakṛṣṭam sarvayāgebhyas tulāyām adhirohatu. 21.

(Ibid., p. 184.)

⁶ Pañcakrośam haripuram nagaram yojanatrāyam. . . . (*Padma-purāṇa-kṣetramāhātmya*, ibid., p. 253.)

⁷ Tanmadhye pañcakrośam ca bhuvi kāśyā yavādhikam |
Kṣetram vai karavīrākhyam kṣetralakṣmī vinirmitam.

(Ibid., p. 277.)

CHAPTER III

WEIGHTS, MEASURES, COINAGE, AND RATE OF INTEREST

- I. WEIGHTS
- II. MEASURES
- III. COINAGE
- IV. RATE OF INTEREST



CHAPTER III

WEIGHTS, MEASURES, COINAGE, AND RATE OF INTEREST

I. WEIGHTS

IN the preceding chapter I have dealt with the general administration of a *janapada* from the revenue, military, and police points of view. In the present chapter I propose to take certain other subjects connected with the economic organization, which have hitherto never been systematically treated, namely, the systems of weights, measures, and coinage and the rates of interest in force. The material for such a study is widely scattered in many Samskrta texts and old inscriptions. The attempt to collate the available information is worth making, if only because the figures arrived at, though they may not be as accurate as we should like them to be, afford important help towards instituting a comparison between the conditions of ancient India and those of mediaeval and modern India. These subjects will be dealt with in the order indicated.

Origin of ancient Indian weights

On the evidence at our disposal it is not possible to assign the origin or introduction of ancient Indian weights to any definite period. A careful study of the following table of the weights used for weighing gold, silver, and copper seems, however, to suggest foreign influence.

TABLE NO. III

(A)

Ancient Indian Standard Weights.

1 *rati* = $\frac{1}{2}$ *māṣaka* = 1·8 gr. approximately.
2 *ratis* = 1 „ = 3·6 gr. „

(B)

Weights used for weighing gold, copper, and silver

For gold and copper.

For silver.

5 *ratis* = 9 gr. = 1 *māṣaka*. 2 *ratis* = 3·6 gr. = 1 *māṣaka*.
80 „ = 144 gr. = 1 *karṣa*. 32 „ = 57·6 gr. = 1 *karṣa*.

For gold, silver, and copper.

320 *ratis* = 576 gr. = 1 *pala*.

It is rather interesting to note in the above table that the weights called *māṣaka* and *karṣa*, whether used in connexion with gold or with copper, have the same meaning; but when used of silver express quite different weights. There does not appear to have been any superstition to account for this peculiar difference, because the weight *pala* represents the same weight, whether used in respect of gold, copper, or silver.

Dr. F. W. Thomas appears to be quite right in regarding the weight *karṣa* as having originated in some foreign country. He writes "The word *karṣa* in the sense of a certain weight, whence the coin *kārṣāpaṇa*, *paṇa*, etc., is regarded by Cunningham (*Coins of Ancient India*, p. 6) as 'probably indigenous, as it is derived from *krish*, to mark or furrow'. This view is no longer tenable, since the Iranian lexicon provides us with the word *karṣa* in the sense of a certain weight, and Dr. L. H. Gray has already (*Journal of the American Oriental Society*, vol. xx, pp. 54-5) equated it to the Sanskrit word. Moreover, the money of the Aramaic colony in Egypt during the sixth century B.C. was reckoned in *karṣas*: see Professor Sachau's *Aramäische Papyrus und Ostraka* (Leipzig, 1911, Index), E. Meyer, *Der Papyrusfund von Elephantine* (Leipzig, 1912, pp. 56 seqq.). Whatever be the ultimate source of the word, whether Egypt or Babylon or elsewhere, it must rank with the Vedic *mana*, or *mina*, as an importation from western Asia" (*JRAS.*, 1916, pp. 366). In the same way the origin of the weight *dhānaka* can be traced to some foreign country. According to the *Nārada-smṛti* and the *Bṛhaspati-smṛti* it was equal to four copper *paṇas* or, say, four *māṣakas* of silver¹ (= 14 gr.), thus fully corresponding in weight and name to the Persian weight and coin known as *dānaq*. It appears to me that the weights used for weighing gold and copper bullion were Indian weights, while those used for weighing silver bullion had their origin in some foreign country.

¹ See Chapter III, p. 90, Note 1.

The development of ancient Indian weights

As in the case of their origin, the development of ancient Indian weights is also very obscure. When the kingdom of Magadha came into power, it appears that some effort was made to remove the diversity of weights. Bhattoji Dikṣita, in his *Siddhānta-kaumudī*, refers to a tradition when he writes *nandopakramāṇi hi mānāni*, i.e. that all kinds of weights and measures began from the time of Nanda. Perhaps from that time two systems of measures and weights, viz. *Māgadha* and *Kāliṅga* came into prominence. The former appears to have been very popular.¹ Kauṭalya advises *rājans* (rulers) to appoint a supervisor of weights and measures and to punish heavily any person using counterfeit weights. "With a view to prevent deception, he (the superintendent of commerce)," Kauṭalya says, "shall also supervise weights and measures. A difference of half a *pala* in such measures as are called *parimāṇi* and *droṇa* is no offence. But a difference of a *pala* in them shall be punished with a fine of twelve *paṇas*. Fines for greater differences shall be proportionally increased. A difference of a *karṣa* in the balance called *tulā* is no offence. A difference of two *karṣas* shall be punished with a fine of six *paṇas* . . . Fines for differences in weight in other kinds of balances shall be calculated on the basis of the above rule."²

The charge for stamping weights and measures was four *māṣas*; and a fine of twenty-seven and a half *paṇas* was imposed for using unstamped weights or measures. Traders

¹ *Kāliṅgam māgadham ceti dvividham mānam ucyate.*

Kāliṅgīn māgadham śreṣṭham mānam mānavido janāḥ. 40.

(*Sāringadhara-saṃhitā*, Venkateśvara Press, Saṃvat,

1976 (1909), p. 14.)

² *Tulā-māna-bhāṇḍāni cāvekṣeta, pautavāpacārāt.*

Parimāṇi-droṇayor ardha-pala-hinātiriktam adoṣaḥ. Pala-hinātirikte dvādaśa-pano daṇḍaḥ. Tena palottarā daṇḍa-vṛddhir vyākhyātā.

Tulayāḥ karṣa-hinātiriktam adoṣaḥ. Dvi-karṣa-hinātirikte ṣaṭ-pano daṇḍaḥ. Tena karṣottarā daṇḍa-vṛddhir vyākhyātā. . . . Tulā-māna-viśeṣāṇam ato'nyeṣāṃ anumānam kuryāt.

(*Kau. Artha.*, pp. 204-5; cf. English translation, p. 250.)

were obliged to pay one *kākaṇī* a day as supervision tax. They were provided with standard weights and measures at the following prices¹ :—

TABLE NO. IV

| <i>Measure of weight.</i> | <i>Price of each measure in copper pana and māsaka.</i> |
|---------------------------------------|---|
| Kuḍava (= 4 palas; 1 pala = 576 gr.). | 1 <i>māsaka</i> . |
| Prastha (= 4 kuḍavas). | 6 <i>māsakas</i> . |
| Āḍhaka (= 4 prasthas). | $\frac{3}{4}$ <i>pana</i> . |
| Droṇa (= 16 prasthas or 4 āḍhakas). | $1\frac{1}{4}$ <i>panas</i> (= 20 <i>māsakas</i>). |
| Pratimāna (= a set or iron weights). | 20 <i>panas</i> . |
| Tulā (balance). | $6\frac{3}{4}$ <i>panas</i> . |

Thus it is quite clear that in the time of Kauṭalya government interference was thought essential to protect the public from counterfeit weights. It appears also that some attempt was made to do away with diversity in weights, and establish uniformity of system. It is interesting to note that the weights used in respect of grain follow to a large extent some common ratio, but at the same time show considerable discrepancies in detail. According to Dr. L. D. Barnett this indicates "that different ages and provinces followed different standards".² In the same way Professor Rapson remarks that "The fact would appear to be that in Ancient India, as in Modern India, very great diversity prevailed in the weight systems of different districts, but that underlying this diversity there were certain general principles of very wide, if not of universal, application".³ "The various systems of weight used in India combine uniformity of scale with immense variations in the weight of units."⁴ Even at present

¹ Caturmāsikam prāṭivedhanikam kārayet.

Aprativeddhasyātyayaḥ sapādaḥ sapta-viṃśati panāḥ.

Prāṭivedhanikam kākaṇikam aharahāḥ pautavādhyakṣāya dadyuḥ.

(*Kau. Artha.*, p. 105.)

Sapāda-pano droṇa-mūlyam, Āḍhakasya pādonah Ṣaṇmāsakāḥ prasthasya. Māsakaḥ kuḍvasya. Dvigunaṁ rasādināṁ mānamūlyam. Viṃśati panāḥ pratimānasya. Tulā-mūlyam tri-bhāgaḥ. (*Ibid.*, p. 105.)

² L. D. Barnett's *Antiquities of India* (ed. 1913, London), p. 206.

³ *Catalogue of the Coins of the Andhra Dynasty*, by E. J. Rapson (1908 ed.), p. clxxxi.

⁴ *Ibid.*

in Benares the weights used in one market differ from those used in another. The same diversity prevails in the system of counting. In one town, for instance, the numerical term *saikarā* (literally meaning a unit of one hundred) may mean 125, and in another 180, and so forth.

Mediaeval and modern equivalents of ancient Indian weights

Dr. L. D. Barnett has already taken great pains to compile a careful account of the different measures of weight in his *Antiquities of India* (pp. 206-10). It is unnecessary, therefore, to detail them here. From the *Artha-sāstra* of Kauṭilya it appears that four kinds of *drona*, namely, containing $162\frac{1}{2}$, 175, $187\frac{1}{2}$, and 200 *palas* respectively, were in use as standard weights.¹ The uniform difference of $12\frac{1}{2}$ *palas* between each of these *dronas* is very remarkable, and was no doubt intended to serve some definite purpose. What this purpose was, must be a matter of speculation until further evidence be forthcoming. It may have been connected with the then prevalent system of realizing the government dues, or the dues payable to the collectors or the other middlemen, in a proportion of the grain. The use of different varieties of the same (nominal) measures of weight has evidently been established from ancient times in India; and perhaps we find a perpetuation of such a system in the different sections of the same market at the present day.

According to Kauṭilya the measures of weight called *kuḍava*, *prastha*, and *āḍhaka* (4 *kuḍavas* = 1 *prastha*; 4 *prasthas* = 1 *āḍhaka*; 4 *āḍhakas* = 1 *drona*) were also (like the *drona*) of four different varieties² (see column A, B, C, and D of Table No. V). Then there was a fifth variety of *drona*, constantly used in works on law and medicine,

¹ Atha dhānya-māṣa-dvipala-śataṃ dronaṃ āyamānam.

Saptāśīti-pala-śataṃ ardha-palaṃ ca vyāvahārikam.

Pañca-saptati-pala-śataṃ bhājanīyam.

Dviśaṣṭi-pala-śataṃ ardha-palaṃ cāntahpura-bhājanīyam.

(*Kau. Artha.*, p. 104.)

² Teṣāṃ āḍhaka-prastha-kuḍumbās caturbhāgāvarāḥ. (Ibid.)

containing 256 *palas*¹ (see column E of the same Table). Further there are the measures of weight used in the Southern Indian inscriptions (see column F of the Table). In the Table I have arranged these six varieties of measures in separate columns (A, B, C, D, E, and F, respectively), showing also the equivalent of each in respect of all the other measures (from *kuḍava* to *vaha*). I have also calculated, for convenience of comparison, the equivalent of each measure, and of each variety thereof, in Akbarī *dāms* (1 *dām* = 324 grains) and in modern avoirdupois weight. The figures must not be accepted as exact; they are only approximate. In fact it is no easy task to assign any definite value to the Southern Indian weights. The trouble starts with the *marakkāl*. According to H. H. Wilson *marakkāl*, commonly *markal* or *mercal*, is "A grain measure in use at Madras, containing eight *padis* or *measures*, and being one-twelfth of a *kalam*: it formerly consisted of 750 cubic inches, but is now fixed at 800 cubic inches: 400 *marakkāls* = one *garisa*, or *garce*. A *marakkāl* of rice or of salt weighs 960 rupees = 12 sers, or 24 lb. 6 oz." From this it appears that a *marakkāl* consisting of 750 cubic inches was equal to 22½ lb. According to Mr. Moreland in the sixteenth century A.D. and afterwards the Southern Indian maund was equal to from 25 to

¹ Catuḥ karṣaiḥ palam proktaṃ daśa-śāṇamitaṃ budhaiḥ |
 Catuḥpalaiś ca kuḍavaṃ prasthādya purvavan matāḥ. 39.
 Palābhyāṃ prasrtir jñeyā prasrtaś ca nigadyate |
 Prasrtibhyāṃ añjaliḥ syāt kuḍavo'rḍha-śārāvakaḥ. 23.
 Aṣṭamānaṃ ca saṃjñeyaṃ kuḍavābhyāṃ ca mānikā |
 Śārāvō'sṭapalaṃ tadvaj jñeyam atra vicakṣaṇaiḥ. 24.
 Śārāvābhyāṃ bhavet prasthaś catuḥprasthais tathāḍhakam |
 Bhājanam kaṃsapātram ca catuḥsaṣṭipalam ca tat. 25.
 Caturbhir āḍhakair droṇaḥ kalaṣaṇalvaṇonmanau |
 Umānaś ca ghaṭo rāśi-droṇa-paryāya-saṃjñakāḥ. 26.
 Droṇābhyāṃ śūrpa-kumbhau ca catuḥsaṣṭi śārāvakaḥ |
 Śūrpaabhyāṃ ca bhaved droṇi vāho goṇi ca sā smrtā. 26.
 Droṇi catuṣṭayaṃ khāri kathitā sūkṣma-buddhibhiḥ |
 Catuḥsahasra-palikā śaṇṇavatyaḍhikā ca sā. 28.
 (Śārngadhara-saṃhitā, Venkaṭeśvara Press, Saṃ. 1976 (A.D. 1909),
 pp. 10-13.)

27 lb.¹ The *droṇa* used in the law-books and other Samskr̥ta works was approximately equal to 21 lb. After careful study of both prices and wages I come to the conclusion that it will not be unreasonable if for the purpose of calculation we regard the *marakkāl* of the Tanjore inscriptions as equivalent to the *droṇa* of other Samskr̥ta books. Accepting the Akbarī *dām* as weighing approximately 324 gr., or 180 *ratīs*, we can convert the ancient Hindu weights into terms of *dāms* and avoirdupois weights (see Table V).

From Table V it is clear that the *prastha* of different weights was used for different purposes. It weighed approximately 18, 20, 21, 22 and 28 *dāms*. It appears from the *Āin-i-Akbarī* that *prasthas* of these weights were current down to the sixteenth century A.D. Abu'l-Fazl writes :—“Formerly in Hindustan, the *ser* weighed 18 and in some places 22 *dām*. In the beginning of His Majesty's reign it was current at 28, and is now fixed at 30, each *dām* being 5 *tank*”.² According to Mr. Moreland the *ser* (*prastha*) of 18 *dāms* was current in Gujarat until 1634-5, and it was afterwards made equal to 20 *dāms*.³ These two kinds of *ser* appear to be very ancient. According to Kauṭalya they were used in the ladies' apartments of the palace and in giving allowances to servants called *antaḥpura-bhājanīya* and *bhājanīya* respectively.⁴ In the table they are denoted by the letters A and B. The *prastha* of 36 *dāms*, which was exactly double of the Gujarāt *ser* (*prastha*), was current in Bengal down to 1642, or later.⁵ The *prastha* of 28 *dāms*, which is used in all Samskr̥ta books on law and medicine, was current down to the time of Akbar. It was afterwards made equal to 30 *dāms* by Akbar.⁶

¹ Moreland's *From Akbar to Aurangzeb*, 1923, ed. p. 336.

² *Āin-i-Akbarī*, vol. ii, p. 125.

³ Moreland's *From Akbar to Aurangzeb*, 1923 ed., p. 335.

⁴ *Pañca-saptati-pala-śatam bhājanīyam*.

Dviṣaṣṭi-pala-śatam ardhapalaṃ cāntaḥpura-bhājanīyam.

(*Kau. Artha.*, p. 104.)

⁵ Moreland's *From Akbar to Aurangzeb*, 1923 ed., p. 336.

⁶ *Ibid.*, Appendix D, pp. 333-7.

Taking all these facts into consideration, it becomes increasingly apparent that the Muhammadan rulers did not show such originality in respect of weights as has been commonly supposed by writers on this subject. No doubt, as sovereigns of a large portion of India, they prescribed certain weights to be standard weights; but these were weights which had already been in popular use from a very early period in India.

II. MEASURES OF LENGTH AND SPACE

1. *Measures of length*

As in the case of weights, the origin and development of the ancient Indian measures of length are also involved in much obscurity. According to Böckh "*the basis of the Greek and Roman metrical systems was that which had prevailed from very early times among the Chaldaeans at Babylon, from which or from some common origin the Egyptians derived their metrical system; and which was carried by the commerce of the Phoenicians into Greece, when it passed over into Italy*".¹ It is rather interesting to note that we find a remarkable correspondence between the ancient Indian measures of length, up to the fathom, and the Babylonian measures. This will be evident from the following table:—

TABLE NO. VI

In the Greek System

| | |
|--------------------|-------------------------|
| 4 digits | make a palm. |
| 3 palms | span. |
| 2 spans | cubit. |
| 4 cubits | fathom. |
| 4 palms | foot (= 12·135 inches). |

In the Roman System

| | |
|-----------------------------|------------------------|
| 4 digits | make a palm. |
| 3 palms | span. |
| 1½ feet (2 spans) | cubit. |
| 4 palms | foot (= 11·62 inches). |

In the Indian System

| | |
|---|-------------------------------------|
| 4 digits (aṅgulas) | make a palm (dhanurgraha). |
| 3 palms (12 aṅgulas) | span (vitasti). |
| 2 spans (24 aṅgulas) | cubit (hasta). |
| 4 cubits | fathom (daṇḍa = nālikā). |
| 3½, 3¾ palms (14 or 15 aṅgulas) | foot (pada = 10·5 or 11·25 inches). |

¹ Smith's *Dictionary of Greek and Roman Antiquities*, London, 1872, p. 754.

The similarity between the Babylonian and Indian measures of length indicates a common origin. There is little room for doubt, on the other hand, that India developed its own measures of length and breadth. In preparing the following table of measures, I have taken 4 digits (*anṅulas*) as equal to 3 inches; and for the sake of comparison I have added another column (Col. No. 4) showing the modern equivalents of ancient measures of length as proposed by Sir A. Cunningham.

TABLE NO. VII¹
(A)

| According to Kauṭalya and other authors. | Inches. | According to Cunningham. | Remarks. |
|--|---------|--------------------------|---|
| (1) | (2) | (3) | (4) |
| 4 anṅulas = 1 dhanurgraha | = 3 | — | According to Kauṭalya. |
| 8 „ = 1 dhanurmuṣṭi | = 6 | — | „ „ |
| 10 „ = 1 kṣudrapada (small-foot) | = 7½ | — | „ Mahādeva. |
| 12 „ = 1 vitasti or pradeśa or chāyā-puruṣa. | = 9 | — | „ Kauṭalya. |
| 14 „ = 1 śama or śala or pada (foot) | = 10½ | — | „ „ |
| 15 „ = 1 pada (foot) | = 11.25 | — | „ Mahādeva. |
| 30 „ = 2 padas or 1 prakrama | = 22.5 | — | „ Kauṭalya. |
| 28 „ = 1 hasta or 1 prakrama | = 21 | — | (used in measuring pasture land, cubic measures, balances, etc.). |

¹ Tatra piśila-mānam pañcadhā vadanti bāhvor antarālam ekam.

Baddha-muṣṭīratnir iti dvitīyam. Aratnir iti tṛtīyam.

Dvātriṃśad anṅulam iti caturtham. Ṣaṭtriṃśad anṅulam iti pañcamam.

(Śrauta-sūtra by Satyāśāḍha, part i, p. 287.)

Anṅulādi-pramāṇam tu śulba ācārya uktavān.

Vedimānopayogitvāt tat-pramāṇam aham bruve.

Caturdaśāṅgavo yāvat tāvad evāṅgulaṃ bhavet.

Trayastrīṃśat tilā vā syāt kośasthā anṅulaṃ tv iha.

Daśāṅgulaṃ kṣudrapadaṃ prādeśo dvādaśāṅgulaḥ.

Pratham ? trayodaśāṅgulyās tāvad evottaram yugam.

Padam pañca-daśāṅgulyo dvādaśāṅgulya' thavā.

Pada-dvayaṃ prakramaḥ syāt prādeśau dvāv aratnikah.

Jānu dvātriṃśadaṅgulyaḥ ṣaṭ triṃśadbāhu śamyake.

Catuṣṣatāṅgulaṃ tv akṣaḥ ṣaḍaśītyaṅgulaṃ yugam.

Ṛṣā pramāṇam anṅulyas tv aṣṭāśītyadhikam śatam.

Aratnayas tu catvāro vyāyāmasya pramāṇakah.

Aratnayas tu pañcaiva puruṣo vyāma eva ca.

| According to Kautalya and other authors. | | | | According to Cunningham. | Remarks. |
|--|---------------------------------|----------------------|---------------|--------------------------|--|
| (1) | (2) | Inches. | (3) | (4) | (5) |
| 24 angulas = 1 | prājāpatya-hasta or 1 aratni | = | 18 | — | According to Kautalya. |
| 24 " | " " | = | 18 | — | " Mahādeva. |
| 24 " | " " | = | 18 | — | " the Dānamayūkha, etc. |
| 32 " | = 1 kiṣku or 1 kaṃsa | = | 24 | — | " Kautalya. |
| 42 " | = 1 kiṣku | = | 31½ | — | " " |
| | | | | | (used by sawyers, blacksmiths, and used in measuring the grounds for the encampment of the army, for forts and palaces.) |
| 32 " | = 1 jānu | = | 24 | — | " Mahādeva. |
| 54 " | = 1 hasta | = | 40½ | — | " Kautalya. |
| | | | | | (used in measuring timber forests). |
| 84 " | = 1 vyāma | = | 63 | — | " " |
| | | | | | (used in measuring ropes and the depth of a place). |
| 86 " | = 1 yuga | = | 64.5 | — | " Mahādeva. |
| 96 " | = 1 daṇḍa or 4 aratni | = | 72 | 5.81 ft. | " Kautalya. |
| 96 " | = 1 vyāyāma | = | 72 | 5.81 ft. | " Mahādeva. |
| 96 " | = 1 dhanuḥ or nālīka | = | 72 | " | " Kautalya. |
| | or puruṣa | | | | |
| 108 " | = 1 gārhapatya-dhanuḥ | = | 81 | — | " " |
| | | | | | (used in measuring the roads and fort walls). |
| 120 " | = 1 puruṣa or vyāma | = | 90 | — | " Mahādeva. |
| 180 " | = 1 puruṣa (= īṣā) | = | 135 | — | " Kautalya. |
| 192 " | = 1 daṇḍa or 6 kaṃsas or 1 nālī | = | 144 | — | " " |
| | | | | | (used in measuring lands granted rent free to Brāhmaṇas). |
| 10 dandas = 1 rajju | | = | 1440 | 116.2 | " " |
| | | (= 40 yds.) | | | |
| 2 rajjus = 1 parideśa | | = | 2880 | 232.4 | " " |
| 1 × 3 " | = 1 nivartana (cubic measure) | = | 40 × 120 yds. | | " " |
| 300 dhanuḥ = 1 nalvā | | | | | " " |
| 1000 " | = 1 goruta | = | 2250 yds. | 2017 yds. | " " |
| 2000 " | = 1 gavyūti | = | 4500 yds. | 4034 yds. | " " |
| 4000 " | = 1 krośa | = | 9000 yds. | 8069 yds. | " " |
| 8000 " | = 1 yojana | = | 18000 yds. | 16138 yds. | " " |
| | | (= 10 miles approx.) | | (= 9½ miles approx.) | |

(B)

Ancient Indian measures of length current up to the Muhammadan period.

| | | | | |
|----|---------|----------------------|-------------------------|--------------------|
| 24 | angulas | = 1 prājāpatya-hasta | = 1 covad of 18 inches | On the east coast. |
| 42 | „ | = kiṣku | = 1 Ilāhī gaz of 32 in. | In Sindh. |
| 54 | „ | = 1 hasta | = 1 Ilāhī gaz of 40 in. | In Northern India. |

(C)

Modern equivalents of ancient Indian measures of distance accepted by me for the purpose of calculation.

| | | | | |
|---|--------|---------|----|----------------|
| 1 | yojana | = about | 10 | English miles. |
| 1 | krośa | = „ | 2½ | „ „ |

In the section dealing with weights it was shown that the Muhammadan emperors had selected some of the Hindu weights, and authorized their adoption. We see the same thing in the case of measures of length. According to the *Dāna-mayūkha* there were three kinds of measures, having the same name and following the same scale, current in ancient India. These were based upon the different digits (*angulas*) of six, seven, and eight barley corns.¹ This opinion is confirmed by Abu'l-Fazl, who writes :—

“Throughout Hindustan there were three such measures current, viz. long, middling, and short. Each was divided into twenty-four equal parts and each part called *Tassūj*. A *Tassūj* of the first kind was equal to eight ordinary barley-corns placed together breadthways, and of the other two respectively, to seven and six barley-corns. The long *gaz* was used for the measurement of cultivated lands, roads, distances, forts, reservoirs, and mud walls. The middling was employed to measure buildings of stone and wood, bamboo-built houses, places of worship, wells and gardens, and the short *gaz* for cloth, arms, beds, seats of state, sedan chairs, palanquins, chairs, carts and the like.”²

According to Mr. Moreland “the measures of length prevailing in Northern India were known as *gaz* ; they varied greatly, and Akbar attempted to standardize them in his

¹ Aṣṭau yūkā yavaṃ prāhur aṅgulam tu yavāṣṭakam,
Aṣṭabhiś cāngulam tiryag yavānām uttamam matam,
Saptabhir madhyamam proktam ṣaḍbhiḥ syād adhamāṅgulam iti.

(*Dāna-mayūkha*, pp. 22-3.)

² *Āin-i-Akbarī*, vol. ii, pp. 58-9.

Ilāhī gaz, which, according to the data given by Abu'l-Fazl, ought to be about 31 inches, but appears in practice to have been rather more than an inch longer. The *Ilāhī gaz* was used in the North, but not universally".¹ It appears to me that the *Ilāhī gaz* of Akbar was the same as the *kiṣku* of 42 *aṅgulas* or say of $31\frac{1}{2}$ inches, which was used, according to Kauṭalya, by sawyers, blacksmiths and government officers for the encampment of the army, for forts and palaces, and in surveying land. The diversity of measures in the time of Akbar may be understood from the fact that on the east coast the *hasta* (or *covad*) was about 18 inches; in Gujarāt, nearly 27 inches; in Sindh, about 32 inches; and in Northern India about 40 inches.² It is interesting to note that all these different measures correspond exactly with the measures mentioned by Kauṭalya. For instance, looking at the table given above, we find that the ancient *prājāpatya-hasta* (east coast) of 24 *aṅgulas*, or say 18 inches, and the *hasta* (North India) of 54 *aṅgulas*, or say $40\frac{1}{2}$ inches, which was used in the time of Kauṭalya for measuring timber forests, and the *kiṣku* (Sindh) of 42 *aṅgulas*, or say $31\frac{1}{2}$ inches, corresponding with the *Ilāhī gaz*, were regularly used in the time of Akbar.³

2. Measures of space

The land grants are full of technical terms connected with the system of measurement of land prevalent in ancient India. Unless their equivalents in modern measures be calculated, a mass of material regarding prices and the productivity of land cannot be utilized. According to the *Dāna-mayūkha* a donor should give a *grāma* (estate) to a Brāhmaṇa; but if he is not in a position to do this, he may give land measuring a *go-carma* ('cow's hide'). He defines *go-carma* as the area of land whereupon a hundred cows and an ox can sit easily, or the produce of which is sufficient to support a Brāhmaṇa for a year, or which is two-thirds of a

¹ Moreland, *From Akbar to Aurangzeb*, ed. 1923, p. 337.

² *Ibid.*, pp. 337-8.

³ See Table No. VII (B) p. 81 above.

brahmadeya-nivartana.¹ According to my calculation the *brahmadeya-nivartana* (area of land granted to a Brāhmaṇa) was almost equal to an English acre.

Another important measure used in the land grants is the *hala* (plough). According to Buchanan "The usual extent which can be cultivated by one plough is 10 large bighahs, or 15 Calcutta bighahs, or 5 acres".² In the same way, Sir W. Hunter writes, in regard to Orissa, that "the cattle are so poor that one pair of oxen cannot possibly work more than 6 acres".³ We may therefore take 1 *hala* (plough) of land as somewhere between 5 and 6 acres. In olden times one 'plough' of land was thought sufficient to provide food and provisions for one *kula* (family). "Taking the cost of living of a family in this tract at Rs 95 also," writes Mr. C. J. Stevenson-Moore in respect of the Gayā district, "6 acres, apart from any supplementary sources of income, can support a family in complete comfort."⁴ It is interesting to learn that even many centuries before Christ the agricultural conditions and the standard of living of the people of India were very similar to those of modern times. According to Baudhāyana's *Dharma-sūtra* a portion of land measuring 6 *nivartanas*, or approximately 6 acres, should be kept free from taxes on the ground that this much is necessary to support a family. Further light is thrown by Baudhāyana on the subject of the term *nivartana*.

¹ Api gocarma-mātreṇa samyag dattena mānavah | Dhauta-pāpo viśuddhātmā svarga-loke mahiyate. (*Dāna-mayūkha*, p. 160.)

Gavāṃ śataṃ vṛṣaś caiko yatra tiṣṭhed ayantritaḥ | Tad dhi gocarma-mātraṃ to prāhur vedavido janāḥ. (Ibid., p. 160.)

Yad utpannam athāśnāti naraḥ saṃvatsaraṃ dvijaḥ | Eka-gocarma-mātraṃ to bhuvaḥ proktaṃ vicakṣaṇaiḥ. (Ibid., p. 23.)

Daśa-hastena daṇḍena triṃśad daṇḍā nivarttanam | Tribhāga-hinam gocarma-mānam āha prajāpatiḥ. (Ibid., p. 160.)

Daśa-hastena daṇḍena triṃśad daṇḍā nivarttanam | Daśa tāny eva varttāni brāhmaṇebhyo dadāti yaḥ. (Ibid., p. 23.)

² Buchanan's Dinaipur (1832), p. 234.

³ Wm. Hunter's *Orissa*, vol. ii, Appendix ii, p. 47.

⁴ C. J. Stevenson-Moore's *Report on the Material Condition of Small Agriculturists and Labourers in Gaya* (1898), p. 20.

It appears probable the *nivartana* was used in the sense of *vr̥tti*, or 'allowance', or 'livelihood'; so an area of land sufficient to support one man from its produce was called *nivartana*.¹ Taking 5 to 6 acres of land as sufficient for a *kula* (family), we can understand the meaning of another term *kulya-vāpa* used in the land grants. According to Mr. Pargiter "the *kulya-vāpa* consisted of 8 × 9 reeds, the reed being about 16 cubits long and the cubit about 19 inches; that is, its area was a little larger than an acre: a *kulya* of seed could certainly provide for this area (and probably more), if it contained 8 *dronas* or bucketfuls."² To me the *kulya-vāpa* appears to have represented the same area as has been described as 'one plough' of land, i.e. an area of between 5 and 6 acres which was thought sufficient for one *kula*. Literally *kulya* means things useful for, or pertaining to, a family (*kulāya hitam kulyam*). As each family kept their seeds separately, it appears that gradually *kulya* began also to mean the seed sufficient for one 'plough' of land. According to Monier-Williams' and the St. Petersburg dictionaries it was equal to 8 *dronas*, or approximately 80 Akbarī *sers*, if we may take the *drona* to be the smaller *drona* of Kauṭilya. As 1 acre of rice land requires 12 to 16 *sers* of paddy according to its productivity,³ the area of the *kulya-vāpa* would come to about 5 or 6 acres, or about one 'plough' of land. Another name for the same area of land appears to have been *vāṭikā*

¹ *Tesām tadvartanād vr̥ttir ity ucyate.* 2. *Śālāsrayatvācchālinatvam. Vr̥tṭyā varayā yātīti yāyāvaratvam. Anukrama-carapāc cakracaratvam.* 3. *Tā anuvyākhyāsyāmaḥ.* 4. *Ṣaṇṇivartanī kauddālī dhruvā samprak-ṣālīnī samūhā pālīnī siloūchā kāpotā siddhecccheti navaitāḥ.* 5. *Tāsām eva vānyāpi daśamī vr̥ttir bhavati. Ānava-vr̥tteḥ.* 6. *Yatho etat ṣaṇṇivartanīti.* 1. *Ṣaḍ eva nivartanāni nirupahatāni karoti svāmine bhāgam utsrjaty anujñātam vā grhṇāti. . . . Etena vidhinā ṣaṇṇivartanāni karoti ṣaṇṇivartanī.* 2.

(*Bodhāyana-dharma-sūtra* (Mysore, 1907), pp. 298-309.)

² *EI.*, vol. xv, No. 7, pp. 130-43; *Ind. Ant.*, xxxix, p. 216 (July, 1910).

³ *Handbook of Indian Agriculture*, by N. G. Mukerji (3rd ed., 1915, Calcutta), pp. 171-2.

or *veli*.¹ According to Maya it consisted of 5 *vartanakas*, each *vartanaka* (*nivartana*) being 128 *dhanuḥ* or *daṇḍas* ²; while the *nivartana* of Prajāpati and Brhaspati contained 130 *daṇḍas*; the difference of 2 *daṇḍas* is negligible, and was perhaps due to local conditions. According to the *Dictionnaire Tamoul-Français* the modern equivalent of the *veli* is 26,755 square metres, which comes to approximately 5 or 6 acres. The superficial measures discussed above may be exhibited as in the following table :—

TABLE NO. VIII

| | | | |
|-------------------|--------------------|--------------------|---|
| 8 dhanuḥ | = 1 kākanikā. | | |
| 4 × 8 dhanuḥ | = 1 māsa. | | |
| 4 × 4 × 8 (= 128) | = 1 vartana. | According to Maya. | |
| 10 × 3 (= 130) | = 1 nivartana. | „ | Kaṭṭalya. |
| 1 kuri | = 576 square feet. | „ | the <i>Dictionnaire</i> <i>Tamoul-Français</i> . |
| 100 kuri | = 1 kani. | | |
| 5 kanis | = 1 veli. | | |

III. COINAGE

The origin and evolution of the system of coinage prevailing in ancient India is equally involved in obscurity. From prehistoric times in India gold was used in gilding the wheels of chariots and the horns of cattle, and in making jewellery. The demand for it was universal, and it was much prized by everyone. Owing to this gold pieces weighing *kṛṣṇala*, *śatamāna*, *hiranya*, *suvarṇa*, *niṣka*, etc., were given to the Brāhmaṇas as gifts in different sacrifices and ceremonies. The passages in the *Śatapatha-brāhmaṇa* referring to these gifts are very interesting, and give a good idea of the popularity of the metal.³ There is no doubt that these pieces were made

¹ *SII.*, vol. ii, No. 66, p. 259.

² Aṣṭa-dhanuḥ caturaśrā kākanikā tac-catur-guṇam māsam.
Māṣacatur vartanakam tat-pañca-guṇam hi vāṭikā kathitā.
Mayamata. (*Et.*, vol. xv, No. 5, p. 55.)

³ Tasya hiranyam dakṣiṇā. . . . (Kā., 5, 2, 3, 6, p. 279.)
Tasmād dhiranyam dakṣiṇā. . . . (Kā., 5, 2, 3, 6, p. 279.)
Hiranyamayim srajam udgātre rukmam hotre. . . . (Kā., 5, 4, 5, 22, p. 304.)
Tasya triṇi śatamānāni hiranyāni dakṣiṇā. . . . (Kā., 5, 5, 5, 6, p. 311.)
Hiranyayam dakṣiṇā suvarṇam śatamānam. . . . (Kā., 4, 1, 8, 13, p. 653.) (*Śatapatha-brāhmaṇa*, Ajmer, ed. Sam., 1959.)

of equal weight to avoid any injustice or inequality. It appears that some Brāhmaṇas, getting into financial difficulties, sold these pieces to other people, and thus put them into circulation. Some of the aphorisms of Pāṇini show clearly that *śatamāna*, *hiranya*, and *niṣka* were used in sale and purchase.¹

Coming to the period of Kauṭalya and Manu and the other law-givers, we do not find any change in the popularity of gold. Its use for coinage in India proper prior to the commencement of the Mauryan period appears to be doubtful; but the metal served as the basis of different transactions; the demand for it was constant and steady.

As to its value in terms of silver or copper we are entirely in the dark. Much confusion has been created by some writers mistaking for coins the weights which were used for weighing gold bullion. There were, no doubt, weights called *suvarṇa* and *niṣka*; but that there were coins so named at this early period appears to be doubtful.

A careful study of the fines prescribed in the *Artha-śāstra* of Kauṭalya may possibly afford a clue to the values of gold and silver. In assessing fines the value of any article stolen was taken into consideration. According to Kauṭalya the fine should be twelve times the value of the stolen article. The following table of fines has been compiled from Kauṭalya's *Artha-śāstra*² :—

TABLE NO. IX

| Value of stolen articles. <i>Paṇas.</i> | Fines. <i>Paṇas.</i> | Proportion between the figures in columns 1 and 2. |
|--|-------------------------|---|
| (1) | (2) | (3) |
| $\frac{1}{4}$ | 3 | 1 : 12 |
| $\frac{1}{2}$ | 6 | 1 : 12 |
| $\frac{3}{4}$ | 9 | 1 : 12 |
| 1 | 12 | 1 : 12 |
| 2 | 24 | 1 : 12 |
| 3-4 | 36 | 1 : 12 |
| 4-5 | 48 | 1 : 12 |

¹ D. R. Bhandarkar's *Lectures on Ancient Indian Numismatics* (1921), p. 45.

² Māsa-mūlyād ūrdhvaṃ āpādamūlyād ity apaharatas tripaṇo daṇḍaḥ . . . Ādvipāda-mūlyād iti saṭ paṇaḥ . . . Ātripāda-mūlyād iti nava paṇaḥ . . . Āpaṇa-mūlyād iti dvādaśa paṇaḥ . . . Ādvipaṇa-mūlyād iti caturvimsati paṇaḥ . . . Ācatuspaṇa-mūlyād iti ṣaṭtrimśat paṇaḥ . . . Āpañca-paṇa-mūlyād ity aṣṭa-catvārimśat paṇaḥ . . . (*Kau. Artha.*, p. 224.)

In the classification of different articles it appears that gold and silver were considered to belong to the same class. Kautilya, in Section 76, assessed the fines payable for the theft of 1 *māśaka* of gold and silver as 200 and 12 copper *pañas* respectively.¹ If these fines represent twelve times the value of the stolen article, then the value of the gold and silver pieces, each weighing 3·6 gr. (= 1 *māśaka*) comes to 16·6 and 1 copper *pana* respectively.

The rate of exchange between copper and silver and between silver and gold bullion varied from time to time. Coins of different metals were valued in the market according to their own metallic content. All daily transactions and government accounts were probably kept in terms of copper coins. When the laws of Manu were framed, the exchange ratio between silver and copper bullion appears to have been as 1 : 40 or 50. The rate of exchange between silver and copper *pañas* was fixed as 1 : 16 or 20.² Having regard to the fact that the silver *pana* contained 57·6 gr. and the copper *pana* 144 gr., it will be seen that the ratio was practically the same as in the case of bullion. It would appear that, in the Gupta period at all events, gold and silver coins were legal tender. The exchange value of gold and silver coins in terms of the copper *pana*, however, varied from time to time. The temporary disappearance of gold or silver coins in a particular country may possibly be explained by the operation of Gresham's law.

There is no doubt that from prehistoric times in India silver *pañas* were issued by authorized guilds of traders and bankers, and under the authority of a city or town (*nigama* or *pura-rājya*) or district (*janapada-rājya* or *gaṇa-rājya*); but not everybody was allowed to mint coins. In the time of Kautilya the finding of instruments for minting coin

Suvarṇān māśakam apaharato dviṣato daṇḍaḥ. Rūpya-dharaṇān māśakam apaharato dvādaśa paṇāḥ. Tenottaram vyākhyātam. (*Kau. Artha.*, p. 202.)

² Dve kṣṇāle samadhrte vijñeyo rūpya-māśakaḥ | Te ṣoḍaśa syād dharaṇam purāṇaś caiva rājataḥ. (*Manusmṛti*, viii, 131-8.)

in a man's possession was quite sufficient to cause him to be punished severely. The minting of coins was probably always a prerogative of the ruler. Kauṭalya advised the appointment of two officers, namely *lakṣaṇādhyakṣa* (supervisor of the mint) and *rūpādarśa* (examiner of coin), as well as of spies to detect private and unauthorized coining. "When a person," writes Kauṭalya, "causes a counterfeit coin to be manufactured, or accepts it, or exchanges it, he shall be fined 1,000 *panas*; he who passes a counterfeit coin into the treasury shall be put to death."¹ In another place he advises the banishment of such persons from the kingdom.

It appears from the *Manu-smṛti* and other law-books that small pieces of gold, perhaps weighing one *māṣaka*, or about 7·2 gr., were used in paying fines. There are also passages to prove that the gold *māṣaka* was also used on other occasions.² After the conquest of Northern India by Indo-Scythian kings gold coin weighing from 126·25 to 121·26 gr., or on the average 124 gr., came into circulation under the name of *dīnāra*. Under the Imperial Guptas two kinds of gold coins were issued, one containing the weight of the Indo-Scythian *dīnāra*, and the other that of Manu.³ Side by side with these gold coins the gold *māṣaka* was also current in the market. As the exchange ratio between gold and silver was 1 : 16, the gold *dīnāra* weighing 124 gr. would naturally be exchanged for thirty-five to thirty-six silver *panas*, each weighing 56 gr. as will also be clear from the table below.

¹ Lakṣaṇādhyakṣaḥ catur-bhāga-tāmraṃ rūpya-rūpaṃ tikṣṇa-trapu-sīṣāñjanānām anyatamaṃ māṣa-bīja-yuktaṃ kārayet . . . rūpa-darśakāḥ paṇa-yātrāṃ vyāvahārikīm koṣa-praveśyām ca sthāpayet . . . (p. 84).

Rūpadarśakasya sthitām paṇa-yātrāṃ akopyām kopayataḥ kopyām akopayato dvādaśa paṇo daṇḍaḥ. Tenottaraṃ vyākhyātam. Kūtarūpaṃ kārayataḥ pratigrhṇato niryāpayato vā sahasraṃ daṇḍaḥ. Koṣe prakṣipato vadaḥ (p. 203). (Kauṭalya's *Artha-śāstra*.)

² *Dāna-mayūkha*, pp. 151-2; see also *Satapatha-brāhmaṇa*, *Smṛti-candrikā*, *Vīra-mitrodaya*, etc.

³ D. R. Bhandarkar's *Lectures on Ancient Indian Numismatics* (1921).

TABLE NO. X

If

1-1½ silver *pañas* (each weighing 57·6 gr.) = 1 *rati* of gold (weighing 3·6 gr.) = 16-20 copper *pañas* (each weighing 144 gr.),
then

2-2½ silver *pañas* = 2 *ratis* of gold (= 1 gold *māṣaka* = 1 *suvarṇa māṣaka* = 7·2 gr. gold = 1 *dīnāra* of the *Bṛhaspati-smṛti* and the *Nārada-smṛti* = 1 *suvarṇa*) = 30-40 copper *pañas*.

16-20 silver *pañas* = 16 *ratis* of gold (= 1 *kalañju* = 1 Pagoda = 1 *Niṣka* of the *Lilāvati* = 57·6 gr. of gold). 32-40 silver *pañas* = 32 *ratis* of gold (= *suvarṇa māṣakas* = 115·2 gr. gold = 1 *dīnāra* of Gupta period). 36 silver *pañas* = 32 *ratis* of gold (= 1 *dīnāra* of 124 gr. gold).

40-50 silver *pañas* = 1 *suvarṇa* weighing a *karṣa* or 144 gr.

Thus

30-40 (sometimes 30-48) copper *pañas* = 1 *suvarṇa dīnāra* weighing 7·2 gr.

36 silver *pañas* = 1 *suvarṇa dīnāra* weighing 124 gr.

It is interesting to note that the Nāsik inscription No. 12 mentions the rate of exchange between *suvarṇa* and *kārṣāpaṇa* as 1 : 35.¹ By *suvarṇa* and *kārṣāpaṇa* what particular coins are meant? Does *suvarṇa* mean a *suvarṇa māṣaka* weighing 7·2 gr., or a *suvarṇa dīnāra* weighing approximately 124 gr.? According to the *Nārada-smṛti* the *kārṣāpaṇa* current in Southern India was a silver *paṇa* ²; if this be true, then the *suvarṇa* referred to in the above inscription would be an Indo-Scythian *dīnāra*; otherwise it would be a *suvarṇa māṣaka* weighing 7·2 gr., provided the *kārṣāpaṇa* mentioned there be a copper *paṇa*.

Judging from the Nāsik inscription, the references in the law-books and the table given above it appears that the rate of exchange between gold and silver coin was maintained within two limits, namely 1 : 30 and 1 : 48. A careful study of the weights and measures of ancient India discloses one thing very clearly, namely that the people of those days adhered strictly to the same ratio-scale. They regarded it perhaps as sacred. We find the same thing in the case of the currency. The ancient Indian law-books compiled at different dates agree

¹ Bhūyo'nena dattam varṣe 41 kārṭtika śuddhe pañcadaśe pūrvakam, varṣe 45 pañcadaśe niyuktam bhagavadbhyo devebhyo brāhmaṇebhyaś ca : kārṣāpaṇa-sahasraṇi saptati 70,000 pañca-triṃśakam suvarṇam kṛtvā suvarṇasahasrayoḥ mūlyam. . . . (Bombay Gazetteer, vol. xvi, p. 574.)

² Kārṣāpaṇo dakṣiṇasyām diśi raupyaḥ pravartate. 57. (Nārada-smṛti, p. 229.)

in regard to the ratio-scale: all say that from 16 to 20 copper *panas* are equal to 1 silver *pana*, and that 16 silver *panas* can be exchanged for a gold *niṣka*. The rate of exchange between the copper *pana* and gold *māṣaka* is given as 48 : 1.¹ There cannot be any doubt that the fluctuation in the relative values of gold, silver, and copper was as great in those days as in modern times.² Why do we not find any record of these fluctuations? Why are all the law-books entirely silent about this? Changes in the rate of exchange would affect the value of fines. But we do not find any reference to such fluctuation in any of the law-books. Probably such fluctuation was met by altering the weight of pure metal in the coins. If this conjecture could be accepted things would become clearer. It would have been possible to estimate approximately the fluctuations in the relative values of the metals, if the pure metal contents had been recorded in the coin catalogues.

It has already been stated that according to the Nāsik cave inscription No. 12 the rate of exchange between gold and silver coin was 1 : 35. Down to the eleventh century A.D. and later in the district of Tanjore the gold coin called *kalañju* was exchanged for 3 *kāśus* or for 36 *akkas*. There is no doubt that *akka* is a Prākṛta form of the Samskṛta word *akṣa*, which means a thing weighing a *karṣa*. Since silver coins were not popular or frequently used, it will not be safe to take the *kalañju* as a silver *pana*. Assuming it to be a gold *fanam* (= gold *pana*) no difficulty arises. The word *kalañju* was used according to the *Bālaṃbhattīya* with two meanings, viz.

¹ Kārṣāpaṇoṇḍikā geyā tās catasras tu dhānakāḥ,
Tad dvādaśa suvarṇas tu dinārākhyah sa eva tu. 60.

(Ibid., p. 229.)

Tāmra-karṣa-kṛtā mudrā vijñeyah kārṣikah paṇah.

Sā eva cāndrikā proktā tās catasras tu dhānakāḥ.

Tā dvādaśa suvarṇas tu dinārākhyah sa eva tu. (Brhaspati.)

(*Parāśara-dharma-saṃhitā*, Kāṇḍa iii, Bhāga i, p. 158.)

² On the fluctuation in the rate of exchange between gold and silver see *Caihy and the Way Thither*, vol. iv, p. 54 f. (Hakluyt Society, second series, No. xli, 1916, ed. by Yule and Cordier.)

for a *suvarṇa* weighing 40 *ratīs* and for a *suvarṇa* (gold) *māṣaka* weighing 2 *ratīs*.¹

If the *kalaṅḡu* of Southern India followed the same weight scale as was prescribed by the law-books then it probably weighed 72 gr., or half a *karṣa* (= *kāṣu* = *dharāṇa*). For the purpose of calculation I would rather take it as weighing 57·6 gr., and in value and metal content exactly the same as the *niṣka* of Bhāskara, which was equal in value to 16 *drammas* (= *purāṇa* = silver *paṇa*) and 256 copper *paṇas*. The reason for this appears from the conclusions drawn by Sir Walter Elliot, who, after examining the weights of ancient Southern Indian gold coins, remarked that "They weigh about 52 gr.; evidently derived from the *kalaṅḡu*, their original name being *pon*, which simply means gold in Tamil, becoming *hon* in Canarese, and the origin of the Mahommedan *hun*. They appear to have been in use for a great length of time, and probably constituted a considerable portion of the vast treasures transported to Delhi by the armies of Ala-ud-din and his successor in the fourteenth century".²

Taking the *kalaṅḡu* as weighing 57·6 gr. and as being much the same as the *niṣka* of Bhāskara, we get its equivalent in ancient Hindu copper *paṇas* and in the *dāms* of Akbar as follows :—

TABLE NO. XI

| |
|---|
| 3 <i>dāms</i> = 1 <i>akka</i> = 1 gold <i>fanam</i> . |
| 7 copper <i>paṇas</i> = 3 <i>dāms</i> = 1 <i>akka</i> = 1 gold <i>fanam</i> . |
| 12 <i>akkas</i> = 36 <i>dāms</i> = 1 <i>kāṣu</i> = 1 Akbarī Re. = 84 copper <i>paṇas</i> . |
| 3 <i>kāṣu</i> = 1 <i>kalaṅḡu</i> or <i>niṣka</i> = 36 <i>akkas</i> = 108 <i>dāms</i> = 3 Akbarī Rs. = 1 <i>hūn</i> or <i>pagoda</i> . |

From the above table it is clear that the *kalaṅḡu* was equal to three Akbarī rupees. Mr. Moreland has given a very

¹ *Pañca-guṇḡo bhaven māṣaḥ paṇastaiś ca caturguṇaiḥ, Kalajo dharāṇaṃ prāhur mitimāna-visāradāḥ.* (Viṣṇugupta) *Majjāṭikā kalaṅḡa-viśeṣas tauḷyaṃ guṇḡa-dvayaṃ viduḥ.* (Bālabhāṭṭiya, a commentary on the *Yājñavalkya-smṛti*, Āryabhūṣaṇa Press, Poona, 1914, p. 623.)

² *Coins of Southern India*, by Sir Walter Elliot, p. 52, note 1 (The International Numismata Orientalia). Trübner and Co., London, 1885. See also *ibid.*, pp. 45-53.

detailed account of the *pagoda* (= *kalañju* or *niṣka* of Bhāskara). He writes :—

“Gold coins, known to Indians as *hun*, but spoken of by Europeans as pagodas, were the usual currency of the kingdoms of Golconda and Bijapur, as well as of the Hindu territories further south. Two kinds were in circulation during our period, known respectively as ‘new’ and ‘old’ . . . In the year 1621 the new pagoda was worth about $1\frac{1}{2}$ Spanish rials, or very nearly 3 rupees. . . . Later the new pagoda was taken regularly at 8s., and the change appears to justify the inference that gold was rising relatively to silver; seeing that in 1651 the Company fixed the rupee at 2s. 3d. and the new pagoda at 8s., we may take the latter coin as worth about $3\frac{1}{2}$ rupees in the last decade of our period as against 3 rupees in the earlier years.” (Moreland’s *From Akbar to Aurangzeb*, pp. 331–2.)

Coming down to the sixteenth century A.D. we do not find any marked change as far as the copper *paṇa* was concerned. According to the *Manu-smṛiti* and other law-books this weighed eighty *ratis*, or 144 gr. The weight of the Akbarī *dām* was 180 *ratis*, or 324 gr. In Surat the ancient copper *paṇa* was accepted by the Muhammadan rulers as legal tender; they continued to mint it, and probably made it current under the name of *paisā*. It has already been conjectured that the fluctuation in the relative values of the metals affected the weight or the pure metal content of coins: the numerical ratio between the several descriptions of coin was kept intact. If this be the correct view of the matter, then it may be said that the *dām* and *paisā* appear to be the same as the *dvipaṇa* and *paṇa* of the Hindu period. At the time of the consolidation of the British power in India in 1833 probably the rate of exchange was such as to enable the rupee to be fixed as equivalent to 32 *dāms* (*dvipaṇa*) or 64 *paisā* (*paṇa*). By selecting and promulgating the modern scale of currency the British Government in reality restored the ancient Indian *paṇa* under the name of *paisā*, and the *dvipaṇa* or *dām*, under the name of “double paisā” (*takā*). The ancient

silver *kārṣāpaṇa* is represented by the modern *cavannī* (four *ānā* piece), which bears the old prehistoric ratio to the *paṇa* (the modern *paīsā*), namely, as one to sixteen.

IV. THE NORMAL RATE OF INTEREST

According to the *Smṛti* of Yājñavalkya the normal rate of interest should be 15 per cent per annum, or one-eightieth part of the actual capital per mensem.¹ Kauṭalya's *Arthaśāstra* and the other law-books give the same rate.² A careful study of the inscriptions shows that the rate of interest varied from time to time. It ranged between 9 and 25 per cent per annum. From the tenth to the eleventh century A.D. the normal rate of interest in Tanjore appears to have been 12½ per cent, as is clear from the following table :—

TABLE NO. XII

| Capital in <i>kāṣu</i> . | Rate of interest per annum | | Purpose of expenditure. | Reference (<i>SII.</i>). |
|-----------------------------|----------------------------|---------------------------|-------------------------------|-------------------------------|
| | in <i>kāṣu</i> . | in kind (paddy). cent. | | |
| 200 | | 50 kalam 12½ | for temple expenses | vol. ii, pp. 75-76 (part i) |
| 1 | | 3 kaṛūṇi | „ | „ |
| 100 | | 25 kalam | „ | „ |
| 500 | | 125 „ | „ | „ |
| 200 | | 50 „ | „ | „ |
| 520 | | 130 „ | „ | „ |
| 190 | 24½ | „ | „ | „ |
| 1 | (1/8 akka) | „ | „ | „ |
| 112 | 14 | „ | „ | „ |
| 100 | 12½ | „ | „ | „ |
| 1 | | (3 sheep) | „ | „ |
| 32 | | (96 sheep) | (1 uṛakku of ghee per day) | „ |
| 600 | | 150 kalam | „ | Ibid., p. 95 |
| 800 | 100 | „ | „ | „ 97 |
| 104 | 13 | „ | „ | „ 98 |
| 800 | 100 | „ | „ | „ 99 |
| 1000 | 125 | „ | „ | „ 100 |
| 500 | 62½ | „ | „ | „ 101 |
| 300 | 37½ | „ | „ | „ 102 |
| 800 | 100 | „ | „ | „ 103 |
| 500 | 62½ | „ | „ | „ 104 |
| 500 | „ | „ | „ | „ 105 |
| 50 | „ | „ | „ | „ 132 |

See also : Vol. ii, part ii, p. 126 ; vol. iii, part i, p. 113 ;

Vol. ii, part i, pp. 133-4, 148-9.

¹ *Āśīti-bhāgo vṛddhiḥ syān māsi māsi sabandhake.* (*Yājñavalkya-smṛti*, iii, 36.)

² *Sapāda-panā dharmyā māsa-vṛddhiḥ paṇa-śatasya.* (*Kau. Artha.*, p. 174.)

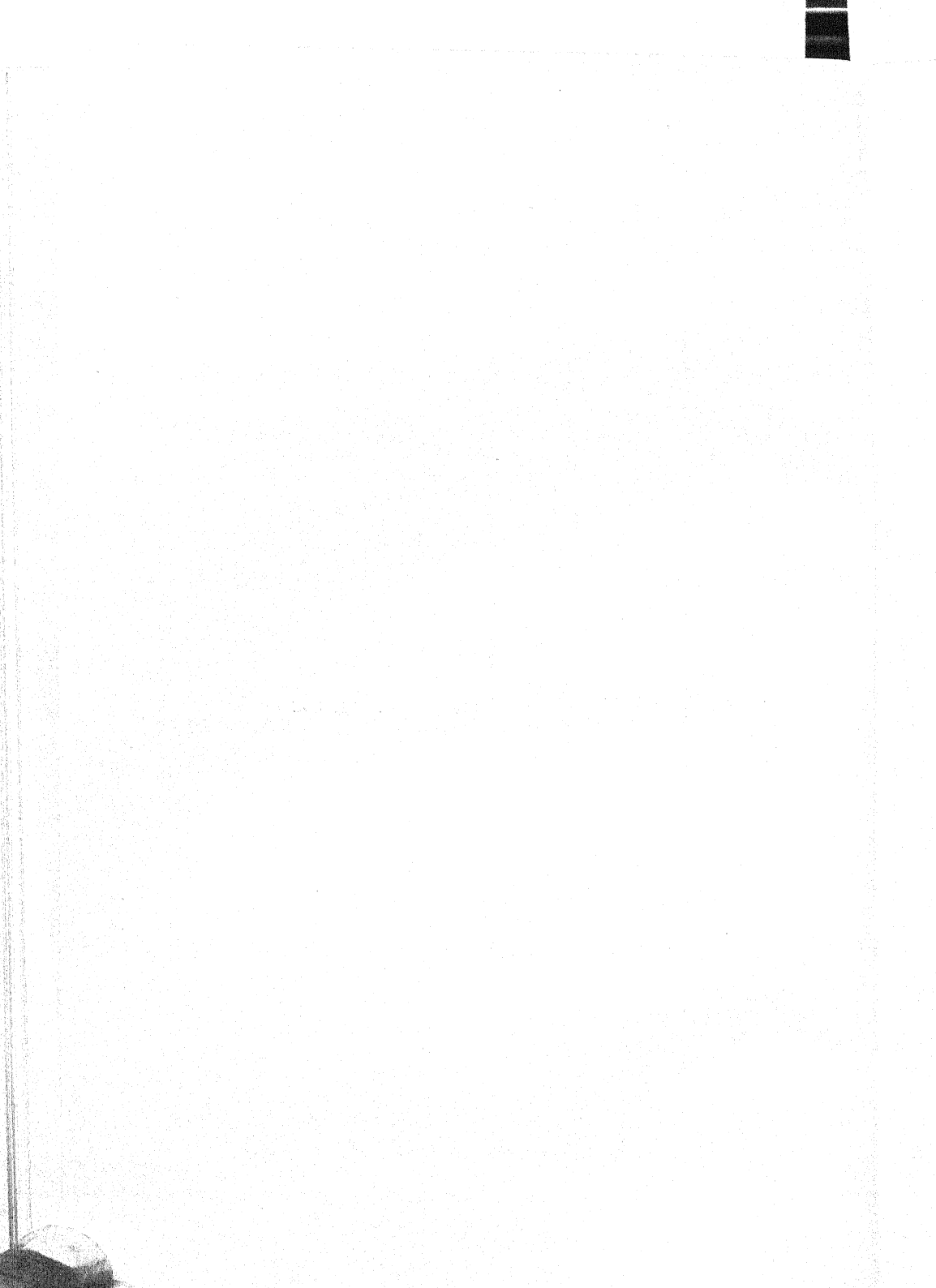
According to one of the inscriptions at the Pāṇḍu-lena caves of Nāsik (No. 12) the rate of interest was from 9 to 12 per cent, if the interpretation of the expressions *paḍikaśata* and *pāḍona-paḍikaśata* may be taken to mean one and three-quarter *paḍika*, or silver *pana*, a month per hundred. The *paḍika* of this inscription seems to have meant a quarter of a *pana*. Interpreting the expression quoted above as meaning that 100 and 75 *paḍikas*, or say 400 and 300 copper *panas*, was the annual interest on 2,000 and 1,000 copper *panas* respectively, the rate of interest amounts to from 20 to 30 per cent.¹ According to the five Bāṇa inscriptions from Gudimallam (*EI.*, vol. xi, No. 22, p. 222) the current rate of interest was 25 per cent per annum. Taking all this evidence into consideration it appears to me that the normal rate of interest was 15 per cent per annum, as stated in the law-books, and this rate may be taken for the sake of calculation in those places where the annual rate of interest is not specified.

¹ Dattā cānenākṣayanivih kārṣāpaṇa-sahasrāṇi trīṇi 3000 saṃghāya cāturdiśāya . . . kaulika-nikāye 2000, vṛddhiḥ pratikaśataṃ (*paḍikaśata*) ; अपरा-कौलिका-निकाये 1000, वृद्धिः पादोना-प्रतिकाशताम (*paḍikaśata*) . . . (*Bomb. Gaz.*, vol. xvi, p. 574.)

CHAPTER IV

PRICES

- I. PRICES OF ARTICLES OF DAILY CONSUMPTION AND USE
- II. MISCELLANEOUS PRICES



CHAPTER IV

PRICES

I. PRICES OF ARTICLES OF DAILY CONSUMPTION AND USE

IT is not an easy task to get an idea of the prices of different things during the early Hindu period. Owing perhaps to the difficulty of the subject no writer seems to have taken it up hitherto. The wealth and welfare of the people cannot be discussed unless we know their daily earnings in money and its purchasing power: so a knowledge of prices and wages is essential for the purpose of a study of the economic conditions in ancient India.

As far as prices are concerned, the Southern Indian inscriptions are very important. They contain valuable material. In them the market prices are generally quoted in paddy. The difficulties connected with the weights and coins have already been removed in the section dealing with the weights and currency. To ascertain the prices current in the tenth or eleventh century A.D. in India, it is necessary to know the exchange value of other things in paddy. The comparative values may be seen from the following tables:—

TABLE NO. XIII

ARTICLES OF DAILY CONSUMPTION AND THEIR EXCHANGE VALUE AT THE
BEGINNING OF THE ELEVENTH CENTURY A.D.

| <i>Commodities.</i> | <i>Quantity.</i> | <i>Quantity in palas.</i> | <i>Prices in kind or cash.</i> | <i>Prices in palas (of paddy).</i> | <i>Authori- ties.</i> |
|---------------------|---|-------------------------------|---|--|---------------------------|
| Cardamum seeds | 1 kar. and 4 nā. = | 384 | = 1 kāśu | = 3072 | <i>SI.</i> , |
| Champak buds. | 1 paḍakku = | 512 | = 1 kāśu | = 3072 | vol. ii, |
| Khaskhas roots | 605 palas = | 605 | = 1 kāśu | = 3072 | parts |
| Dāla (?) | 1 nā. 3 ura. and 1 ārakku = | 60 | = 5 nā. 1 ūṇi. and 1 ārak. of paddy | = 180 | 1-3, p. 18 |
| Pepper | 1 āra. 1 $\frac{3}{4}$ śev. = | 6 | = 5 nā. 1 ura. of paddy | = 168 | " |
| Spices | 1 āra. 1 śev. = | 5 | = 2 nā. 1 ura. of paddy | = 68 | " |
| Cummin | 3 $\frac{3}{20}$ 3/80 śev. = | 3 $\frac{3}{4}$ | = 1 nā. of pad. | = 32 | " |
| Sugar | 3 $\frac{1}{2}$ palas = | 3 $\frac{1}{2}$ | = | = 88 | " |
| Ghī | 1 ura. 1 āra. 3 $\frac{3}{4}$ śev. = | 15 | = 1 karū. 7 nā. of paddy | = 480 | " |
| Tamarind | 8 palas = | 8 | = 1 nā. of pad. | = 32 | " |
| Curds | 3 nārī = | 96 | = 1 kar. 1 nā. of paddy | = 288 | " |
| Gram | 3 śev. = | 2 $\frac{2}{5}$ | = 1 ura. of pad. | = 8 | " |

| Commodities. | Quantity. | Quantity in palas. | Prices in kind or cash. | Prices in palas (of paddy). | Authori- ties. |
|--------------|------------------|-----------------------|----------------------------|-----------------------------------|---------------------------------------|
| Plantains . | 18 numbers | = — | = 5 nāri of pad. | = 160 | p. 18. |
| Bark . | 1 kāśu in weight | = $\frac{1}{4}$ | = 1 nāri of pad. | = 32 | " |
| Pulse . | 1 nāri | = 32 | = 3 nāri of pad. | = 96 | " |
| Husked rice | 4 nāri | = 128 | = 1 karū. 2 nā. of paddy | = 320 | SI., vol. ii, part 1, p. 75. |
| Ghī . | 1 ārakku | = 4 | = 4 nā. of pad. | = 128 | " |
| Ghī . | 2½ šev. | = 2 | = 2 nā. of pad. | = 64 | " |
| Pulse . | 1 ūri. | = 16 | = 1 nā. 1 ūri of pad. | = 48 | " |
| Sugar . | ½ pala. | = $\frac{1}{2}$ | = 1 nā. 1 ūri of pad. | = 48 | " |
| Curds . | 1 nāri | = 32 | = 3 nāri of pad. | = 96 | " |

Note. kar.=karūni. nā.=nāri. pad.=paddy. ura.=urakku. āra.=ārakku. šev.=ševīḍu. pal.=pala.

When we know the different prices in term of paddy, the prices of other articles may be calculated in the following way :

TABLE NO. XIV

TABULATED STATEMENT OF PRICES FROM THE TIME OF KAṬĀLYA UP TO THE SIXTEENTH CENTURY A.D.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|-------------------|--------------------|--------|---|--|--|---|--|
| Commodities | Palas | Palas | Barter rate between paddy and other produce of 11th century | Prices per maund in 11th century A.D. | Prices per maund in the time of Akbar | Prices per maund in the time of Kaṭalya [cal- culated] | Prices per maund in 9th century A.D. [cal- culated] |
| | | | | Kāśus. Akka. Dāms. Rs. | Dāms | Copper Panās | Akkas |
| Paddy | 3072 = 3072 | 1 : 1 | 1/6 = 2 | 6 | | 2 | 1 |
| Cardamum seeds | 384 = 3072 | 1 : 8 | 4/3 = 16 | 48 | 78 = 3120 | 16 | 8 |
| Champaka buds | 512 = 3072 | 1 : 6 | 1 = 12 | 36 | | 12 | 6 |
| Khaskhas roots | 605 = 3072 | 1 : 5 | 5/6 = 10 | 30 | | 10 | 5 |
| Dāla (?) | 60 = 180 | 1 : 3 | $\frac{1}{3}$ = 6 | 18 | 27 | 6 | 3 |
| Pepper | 6 = 168 | 1 : 28 | $4\frac{2}{3}$ = 56 | 168 | 25½ = 1020 | 56 | 28 |
| Spices | 5 = 68 | 1 : 14 | 2½ = 28 | 84 | | 28 | 14 |
| Cummin | $\frac{3}{4}$ = 32 | 1 : 42 | 7 = 84 | 252 | 3 = 120 | 84 | 42 |
| Tamarinda | 8 = 32 | 1 : 4 | $\frac{1}{4}$ = 8 | 24 | | 8 | 4 |
| Curds | 96 = 288 | 1 : 3 | $\frac{1}{3}$ = 6 | 18 | 27 | 6 | 3 |
| Gram | 3 = 8(9) | 1 : 3 | $\frac{1}{3}$ = 6 | 18 | 24 | 6 | 3 |
| Pulse | 32 = 96 | 1 : 3 | $\frac{1}{3}$ = 6 | 18 | 27 | 6 | 3 |
| Salt | 12 = 12 | 1 : 1 | $\frac{1}{1}$ = 2 | 6 | 24 | 2 | 1 |
| Ghī | 16 = 480 | 1 : 30 | 5 = 60 | 180 | 4 = 158 | 60 | 30 |
| Husked rice | 2 = 5 | 1 : 2½ | $\frac{1}{2\frac{1}{2}}$ = 5 | 60½ | = 30 | 5 | 5 |
| Sugar | 3½ = 88 | 1 : 24 | 4 = 48 | 144 | 4½ = 182 | 48 | 24 |
| Oil | | | | | | 41 | |

Note. The rate of exchange among these coins is shown below :—

3 dāms = 1 akka = 1 gold fanam = 7 copper panās.

36 dāms = 12 akkas = 1 kāśu = 1 Akbari Re. = 84 copper panās.

36 akkas = 1 kalañju or the niška of Bhāskara = 3 Akbari Rs.

From the above table it will be clear that the price of *ghī* was 60 *akkas* per maund. According to the five Bāṇa inscriptions from Gudimallam the current rate of interest in A.D. 888 was 20 per cent per annum. The inscription No. D. records a grant of 30 *kalañju* of gold given by the Bāṇa queen *Madevi aḍigal*, from the interest of which was to be met the expenditure on account of twilight offerings and lamps at the *Paraśurāmeśvara* temple at *Tiruvippirāmabeḍu*. Inscription E registers the grant of 20 *kalañju* of gold; out of the interest, amounting to 4 *kalañju*, 180 *nālī* of *ghī* (clarified butter) was to be purchased at the rate of 45 *nālī* for each *kalañju*. The lamp required 1 *ūrī* of *ghī* per day. According to the table of weights No. E, an *ūrī* and *nālī* are equal to $1\frac{8}{11}$ and $2\frac{1}{2}$ lb. respectively. Multiplying 1 *nālī* or say $2\frac{1}{2}$ lb. by 45, the price of *ghī* comes to 36 *akkas* for 124 lb. or say 24 *akkas* per maund. It is clear from this that the price of *ghī* rose from the ninth century A.D. to the eleventh century A.D. from 24 *akkas* to 60 *akkas* per maund, or $2\frac{1}{2}$ times.

A careful study of other inscriptions also shows that the normal gold price of *ghī* rose gradually during the long period concerned. Usually for one lamp, which required 1 *urakku* of *ghī* per day, the capital sum allowed was approximately 10 *kalañju*. On various occasions, instead of paying 10 *kalañju* in cash, ninety-six ewes, or forty-eight cows, or sixteen female buffaloes were given on condition that the keeper of these animals would provide 1 *urakku* of *ghī* per day for an unlimited time. The information contained in the grants mentioning *ghī* and oil lamps may be tabulated as below (see p. 100).

From the table it seems that about the end of the tenth century A.D. the quantity of *ghī* was reduced from 1 *ūrī* to 1 *urakku* and 1 *ārakku* per day, while the same capital sum of 20 *kalañju* was still granted. This reduction in quantity appears to me to be due to the reduction in the rate of interest, which came down from 20 per cent to $12\frac{1}{2}$ per cent, and also due to some extent to the rise in

TABLE NO. XV

| <i>In land.</i> | <i>Amount granted. In money.</i> | <i>In kind.</i> | <i>Quantity of oil.</i> | <i>Quantity of ghī.</i> | <i>Number of lamps.</i> | <i>Conditions.</i> | <i>Sources.</i> |
|-----------------|--------------------------------------|--|-------------------------|-----------------------------|-----------------------------|----------------------------|--|
| 1000 kulis | (32 kāsū) | = 96 sheep | — | 1 ulakku | 1 | perpetual lamp | |
| — | 15 kalanju of gold | — | — | — | 1 | " | |
| — | 4½ " | " | — | — | 1 | " morning and evening only | |
| — | 20 " | " | — | 1 ulakku and 1 ālakku | 1 | perpetual lamp | |
| { 3 veli and | 20 " | " | — | { 1 ūri and | — | | |
| { 1120 kulis | 20 " | " | — | { ¼ camphor | 2 | perpetual lamps | |
| — | 30 kāsū | " = 90 ewes | — | — | 1 | " | " <i>SII.</i> , vol. ii, pt. iii, pp. 250-1. |
| 1700 kulis | — | — | — | 1 ulakku | 1 | " | " |
| — | — | 96 ewes or 48 cows or 16 she-buffaloes | — | — | — | — | " |
| — | 3 kāsū | = 96 ewes | — | — | 1 | " | " p. 252 |

See also *SII.*, vol. ii, pt. iv, pp. 446-58, 477-97.

the prices of *ghī*. Another interesting thing is that the amount granted for *ghī* lamps or oil lamps is not very different; in some cases the amount granted for oil lamps is more than that given for a *ghī* lamp. For instance, inscription No. 44 of Mahāvalī Vānarāja registers 25 *kalañju* of gold for an oil lamp which required 1 *uṛakku* and 1 *āṛakku* of oil per day.¹ For the same amount of *ghī*, the amount granted was 20 *kalañju* of gold.² Does this mean that oil was dearer than *ghī* in Tanjore? It seems that the prices of oil and *ghī* were not very different, as in another inscription the sum granted for the same amount of oil is 20 *kalañju* of gold.³

According to the Indor inscription of the Bulandshahr district, a guild of Indrapura-vāsin oil makers gave 2 *palas* of oil per day for keeping a lamp burning in the temple of the Sun-god.⁴ It appears probable that the lamp had only to be lighted at twilight. According to the *Dāna-mayūkha* the lamp should be lighted at night in the hollows of trees, in temples, and on roads, and at places most frequented by men. For this purpose 800 *palas* or 1 *tulā* of oil should be granted every year.⁵ The Sāñchī inscription of Dīvānaganj records the grant of one *dīnāra* for a perpetual oil lamp of such kind.⁶ Other inscriptions of the same period register similar amounts.

If the *dīnāra* be accepted as equal to 16 silver *pañas* and the rate of interest as 12½ per cent the price of 800 *palas* comes to 32 copper *pañas*. According to the table of weights (No. V, Col. E) given in Chapter III (*vide* page 77) 800 *palas*

¹ *SIL.*, vol. iii, pt. i, No. 44, p. 96.

² *Ibid.*, No. 46, p. 98; No. 48, p. 101.

³ *Ibid.*, No. 45, p. 97.

⁴ *Corpus Inscriptionum Indicarum*, vol. iii, by J. F. Fleet, pp. 70-1.

⁵ Devasya dakṣiṇe pārśve deyā taila-tulā nrpa | Phalāṣṭakayutā rājan vartti tatraiva dāpayet. Vāsasā tu samagreṇa sopavāso jītendriyaḥ | Mahāvartti-dvayam idam sakṛd datvā mahīpate. Giriśṛṅgeṣu dātavyaṃ nadināṃ puliṇeṣu ca | Catuspathēsu rathyāsu brāhmaṇānāṃ ca veśmasu. Vṛkṣamūleṣu goṣṭheṣu kāntāra-gahaneṣu ca | Dipadānena sarvatra mahat phalam upāśnute. (*Dāna-mayūkha*, p. 250.)

⁶ *Corpus Inscriptionum Indicarum*, vol. iii, by J. F. Fleet, p. 261.

would equal about 64 lb. Thus the price of a maund of oil would come to 41 copper *panas*, or say approximately 6 *akkas* per maund, if we divide 41 by 7. As the price of *ghī* in the eleventh century A.D. was approximately 60 *akkas* per maund, the rise of prices from the fifth century A.D. down to the eleventh century comes to approximately ten times. (On taking the *dīnāra* as equal to 32 silver *panas*, the rise of prices comes to only five times.)

As far as the rise of prices in the value of food-stuffs is concerned, we can get some idea from the inscriptions recording the amounts given for the feeding of Brāhmaṇas. For instance the inscription No. 1 of Rājakesari, dated A.D. 1000, registers 200 *kalañju* of gold for the feeding of twelve Brāhmaṇas, or say $16\frac{2}{3}$ *kalañju* of gold for each Brāhmaṇa.¹ The amount recorded in the Sāñchī inscription of the Gupta period is 25 *dīnāras* for providing food for ten *bhikṣus* and oil for two perpetual lamps.² At that time 1 *dīnāra* was thought sufficient for one perpetual lamp. We may therefore deduct 2 *dīnāras* from 25, and the balance, viz. 23 *dīnāras*, will represent the amount required to provide food for ten Brāhmaṇas, or say $2\frac{3}{10}$ *dīnāras* per head. If we divide $16\frac{2}{3}$ by $2\frac{3}{10}$, we get the purchasing power of a *dīnāra* as equal to that of $7\frac{1}{4}$ *kalañjus*, or in other words we find that the prices of food-stuffs rose seven and a quarter times from the fifth century A.D. to the eleventh century A.D.

(The rise of prices comes to about four times if the *dīnāra* be taken to be equal to 32 silver *panas*.)

An important passage of Manu appears to corroborate this view. He imposes the penalty of death in case of theft of valuables worth more than 100 copper *panas*, or of grain weighing more than 10 *kumbhas*.³ This would seem to indicate

¹ *SII.*, vol. iii, pt. i, No. 1, p. 3.

² *Corpus Inscriptionum Indicarum*, vol. iii, by J. F. Fleet, pp. 31-2.

³ Dhānyaṃ daśabhyaḥ kumbhebhyaḥ haratopyadhikaṃ vadaḥ | Śeṣe 'py ekādaśaguṇaṃ dāpyas tasya ca taddhanam. Suvarṇa-rajatādīnām uttamānām ca vāsasām | Ratnānām caiva sarveṣām śatād apy adhikaṃ vadaḥ. (*Manu-smṛti*, viii, 320-1.)

that the value of 10 *kumbhas* of grain was about 100 copper *pañas*. According to Table V above (Chapter III) 1 *kumbha* was equivalent to 410 lb.; so 10 *kumbhas* would be 4,100 lb., or 50 modern standard maunds (taking the maund at 82 lb.). If then 50 maunds of grain were worth 100 copper *pañas*, 1 maund would be worth 2 copper *pañas*, which is exactly seven times the price of paddy as found from the Tanjore inscriptions (Table XIV, Chapter IV).¹

The rise in the value of cows, oxen and other animals can be judged from the figures of ransom values given in the law-books. The principle followed in fixing the amount of ransom was to take from one-fifth to one-sixth of the actual value of the lost article as the king's due. For instance, Manu writes that the ruler, when the lost article is found, shall take one-sixth part of the value as his due from the owner.² According to Kauṭalya "He who proves his title to a lost or stolen biped shall pay 5 *pañas* towards ransom (before taking possession of it). Likewise the ransom for a single-hoofed animal shall be 4 *pañas*; for a cow or a buffalo 2 *pañas*; for minor quadrupeds, one-fourth of a *paṇa*" (*Kau. Arth.*, English translation, p. 233).³ *Yājñavalkya*, has also repeated the same amounts of ransom.⁴ If we

¹ It has already been stated that by accepting the *dināra* as equal to 32 silver *pañas* the increase in prices amounts to from 400 to 500 p.c. Whether the *dināra* was equal to 16 or 32 silver *pañas* depends largely upon the date assigned to the *Manu-smṛiti* and the *Artha-śāstra* of Kauṭalya. Dr. F. W. Thomas assigns the date of the *Artha-śāstra* of Kauṭalya as prior to the Christian era, while Professor Jolly holds the opinion that it was compiled much more recently. The general view appears to be that it was compiled during the Gupta Period, in which case the *dināra* would be equal to 16 silver *pañas*. In the present work the writer has found it desirable to adopt the general view that the *Artha-śāstra* of Kauṭalya was compiled during the Gupta Period.

² Ādaditātha saḍbhāgaṃ praṇaṣṭādhigatān nṛpaḥ. (Ibid., viii, 33.)

³ Svakaṛaṇena pañcapanikam dvipadarūpasya niṣkṛayaṃ dadyāt.

Catuṣpanikam eka-khurasya, dvipapanikam go-mahiṣasya, pādikaṃ kṣudra-paśūnām; ratna-sāra-phalgu-kupyanām pañcakaṃ śataṃ dadyāt. (*Kau. Artha.*, p. 190.)

⁴ Pañān ekaśaphe dadyāc caturah pañcamānuṣe. Mahiṣoṣtragavām dvau dvau pādām pādām ajāvike. (*Yājñavalkya-smṛiti*, p. 224.)

multiply the amounts of the fines by six, the price of a single-hoofed animal comes on the average to 24 *panas*; that of a cow or buffalo to 12 *panas*; and that of a minor quadruped to $1\frac{1}{2}$ *panas*. In the *Mūlyādhyāya-pariśiṣṭa* of Kātyāyana the price of a cow is given as 10 copper *panas*.¹ According to the fines, the average price of a cow was 12 *panas*. In some books dealing with charity it is stated that a poor Brāhmaṇa who is unable to give a cow can give 1 *purāṇa*, or 16 copper *panas*, being the value thereof.² In the one case we see the price of a cow to have been 10 *panas*, and in other case 16 *panas*. The mean between these figures is 13 *panas*, or nearly the same amount as we deduced above from the ransom price given in the law-books. The price of a white ox appears to have been the same. According to the *Vasiṣṭha-dharma-sūtra*, the penalty levied for unnatural intercourse with an animal was a white ox.³ Kauṭalya gives the penalty for the same offence as 12 *panas*.⁴ He repeats the passage of the *Vasiṣṭha-dharma-sūtra* almost word for word. Thus it is clear that the price of a cow in the early Hindu period was from 8 to 12 copper *panas*. According to the Tanjore inscriptions the price of ninety-six ewes, or forty-eight cows, or sixteen female buffaloes was 32 *kāśu* or 384 *akkas*.⁵ On dividing 384 by 48 the price of an ordinary cow comes to 8 *akkas* or 56 copper *panas*. If we divide again 56 by 8 and 12, we get the rise of prices as 7 and $4\frac{2}{3}$ times or on the average 6 times $\frac{(7 + 4\frac{2}{3})}{2} = \frac{35}{6}$.

As to the price of land, no definite figure can be proposed. There were two persons very greatly interested in the land, viz. the king and the *sāmanta* (noble). Granting land to a

¹ Daśa-kārsāpaṇo dhenor aśve pañcadaśaiva tu. (*Mūlyādhyāya-pariśiṣṭa*, MS.)

² Dhenor abhāve dātavyam tulyam mūlyam na saṃśayaḥ. . . . Kārsāpaṇaikamūlyā hi daridrāṇām prakīrtitā. . . . (*Dāna-mayūkha*).

³ Tiryaḡyonivyavāye śuklam ṛṣabhaṃ dadyāt. (*Vasiṣṭha-dharma-sūtra*, p. 67.)

⁴ Maithune dvādaśa paṇaḥ tiryaḡyonīṣv anātmanah. (*Kau. Artha.*, p. 236.)

⁵ *SHI.*, vol. ii, No. 94, pp. 436-57; *ibid.*, Nos. 63, 95.

Brāhmaṇa was quite a different thing from the sale and purchase of land. At the time of the sale or the purchase of land, if the presence of important witnesses was required, this was only in order to settle disputes regarding the boundaries of a farm or an estate. There is no doubt that preference was given to a near relative or a neighbour as a purchaser. As the alienation of land affected the share of the king, naturally his permission was necessary. It has already been made clear that the relations between the ruler and the estate-owners were governed by agreements (*saṁdhis*). The owner of an estate was regarded as a vassal of the king. There is no doubt that before the Muhammadan conquest of India, owing to the degeneration of the old noble families, a good number of trading class people became owners of estates and enjoyed a good position in society. Titles were conferred upon them. They were allowed to use certain things and to wear certain ornaments as privileges. Taking all these distinctions into consideration, it seems but natural that a king should take a personal interest in the alienation of landed property. The presence of important witnesses and the necessity of obtaining the king's sanction have been interpreted by Mr. Pargiter in a different way. He seems to assign too great importance to the village community when he writes that "The alienation of land was an act which took place before the leading men of the village. In fact, the alienation of land and the introduction of a new owner were evidently matters which concerned the whole village, and to which the consent of the village through its leading men was indispensable from beginning to end, although the land might belong to a private owner."¹ To my mind the presence of these witnesses was to avoid subsequent disputes, and, if such should arise, to enable them to be speedily and justly settled. Further, the permission of the king and the payment made to him, required in the case of grants of land to Brāhmaṇas, also rested on different grounds. Take, for instance, the five

¹ *Indian Antiquary*, July, 1910, p 214.

Dāmodara copper-plate inscriptions of the Gupta period. It appears that for a *kulya-vāpa* of land the king demanded from 2 to 3 *ḍināras*, according to the quality of land. This payment has been interpreted by Mr. Pargiter as representing the price of the land. He writes that "An interesting fact mentioned in all three plates is that there was an established rule (*maryādā*) fixing the price at which cultivated land was sold in this region . . . That rule was that the *kulya-vāpa* was priced at four *ḍināras*."¹ It has already been made clear that originally the land belonged to the estate-owners, though the ruler was entitled to take his share, which was from one-fourth to one-sixth of the net income. If a man wanted to make a grant of land to a Brāhmaṇa rent and tax free, naturally the ruler's permission was required. It seems to me that the payment made to the ruler on such occasions represented compensation for the loss involved of his share. The real question is on what principles was the amount of compensation determined? I think the amount demanded by the king would be at least such a sum that the interest thereon would cover the amount of taxes, rents, and dues hitherto payable to him. Taking the rate of interest as 15 per cent, his share per acre would come approximately to one-fourteenth *ḍināra*. According to the *Upadeśa-taraṅgiṇī* of Ratnamandira Gaṇin the taxes per *grāma* were 1 gold *gadyāṇaka* (perhaps equal to 2 *ḍināras*).² If a *grāma*, or estate, contained on the average 80 acres of land, whereof 20 acres were under cultivation, and we divide 2 *ḍināras* by 20, the taxes per acre of cultivated land would amount to one-tenth *ḍināra*.

Other inscriptions would seem to corroborate my view. According to the Tarpandighi grant of Lakṣmaṇasena the annual income of an area of land which required 125 *ādhakas*

¹ *Indian Antiquary*, July, 1910, p. 214.

² Rājñā svadeśa-pratigrāma-svarṇa-gadyāṇaka-dānaṃ dattam.

Tatas tasyāḥ prativarsaṃ 18 lakṣa 92 sahasra-grāma-gadyāṇakaiḥ 946 maṇa pramāṇaṃ svarṇaṃ militisma. . . . Śrī Kumārapālanṛpeṇa 18 deśa-rājyaṃ prāptam. (*Upadeśa-taraṅgiṇī*, p. 258.)

of seeds was 150 *kapardaka-purāṇas*.¹ Now, we already know that 1 *kulya-vāpa* of land required 32 *āḷkakas* of seed; so that 125 *āḷhakas* would suffice for about 4 *kulya-vāpas*. As 1 *kulya-vāpa* was approximately from 5 to 6 acres, 4 *kulya-vāpas* would represent at least 20 acres. If we divide 150 *kapardaka-purāṇas* by 20, we find the annual income per acre to have been about 8 *kapardaka-purāṇas*, or half a *dīnāra* (as we have already stated that 1 *dīnāra* may be taken as equal to 16 silver *paṇas*). The interest, at 15 per cent, on half a *dīnāra* would approximately be one-fourteenth *dīnāra*.

If we take *pāṭaka* for the *vāṭaka* or *vāṭika* of Maya (as *pa* and *va* are often interchangeable), the annual income of 4 *pāṭakas* of land in the Puṇḍravardhana-bhukti was 200 *kapardaka-purāṇas* according to inscription No. 15 of *EI.*, vol. xv. As 4 *pāṭakas* were equal to 20 acres, the annual income per acre comes to 10 *purāṇas*, or approximately half a *suvarṇa* or half a *dīnāra*, if the exchange ratio between gold and silver at that period were as one to twenty.

In the above paragraphs, I have sought to interpret such inscriptions and references as I have been able to find relating to the value of land. From these it would appear that the dues per acre payable to the ruler amounted to about from one-tenth to one-fourteenth of a *dīnāra*, and the income per acre to the estate-owner was about half a *dīnāra*.

II. MISCELLANEOUS PRICES

A careful study of the Samskr̥ta and Pāli literature discloses considerable material towards ascertaining the prices of different commodities in ancient India. Caution must, however, be exercised before accepting such figures as altogether reliable. The prices in the Southern Indian inscriptions, which are of special importance in this connection, have already been dealt with above. The figures given there denoting the

¹ *EI.*, vol. xii, No. 3, pp. 9-10.

prices may be accepted as correct ; the only doubtful factor is the value to be assigned to the coins and the weights named.

As regards the prices of diamonds and other precious stones we find much material in the *Bṛhat-saṃhitā* of Varāhamihira, in the *Garuḍa-purāṇa* and in other *purāṇas*. We have some manuscripts also in Samskr̥ta and Hindī containing information on this subject. If, in addition, we collect all the material available from the authorities dealing with the Muhammadan period, sufficient material might be obtained to compile a separate treatise on precious stones and their values in ancient India.

It may be mentioned in this connection that the *Kharoṣṭhī* inscriptions edited by Professor Rapson also call for special study, as containing valuable material on the subject of prices. Furthermore some of the appendices of Kātyāyana, namely the *Chāga-pariśiṣṭa*, the *Pari-bhāṣā*, the *Iṣṭikā-pariśiṣṭa*, the *Saṃkhyā-parimāṇa*, etc., are quite useful, and call for careful editing and publication. The authorities on Mathematics also mention the prices of some commodities.

A general survey of the available material on prices is given below.

(i) *Prices of commodities according to the Saṃkhyā-parimāṇa.*

We have already drawn conclusions from the amount of fines and ransoms, from the wages and allowances paid to a day-labourer and from the inscriptions and other authorities that the price of an ox or a cow was about 12 *paṇas* and the wage of a labourer was from half a *paṇa* to one *paṇa* per day. The appendix of Kātyāyana on prices is very important. Unfortunately it has not yet been published. The total number of appendices attributed to Kātyāyana and referred to by Vyāḍi in his *Carāṇa-vyūha* is eighteen. A copy of the MS. was presented by me to Professor Bernard Geiger of Vienna. The prices given in the *Saṃkhyā-parimāṇa* are shown below :—

TABLE NO. XVI

| <i>Commodity.</i> | <i>Price (in copper paṇas).</i> |
|---|-------------------------------------|
| Cow (best) | 32 |
| Calf | 4 |
| Ox (ordinary) | 6 |
| Bull | 8 |
| Cow (ordinary) | 10 |
| Horse (ordinary) | 15 |
| Hiraṇya ? | 10 |
| Cloth (ordinary) | 1 |
| Chāga (sheep or goat) | 8 |
| Sheep (best) | 12 |
| Slave-girl | 50 |
| Elephant | 500 |
| Dolā (common kind of <i>pālki</i>) | 5 |
| Chariot | 6 |
| House (thatched ?) | 8 |

(See Appendix No. A.)

(ii) *Prices of fragrant woods and spices*

The prices of fragrant woods and spices in Rome as given by Pliny and compiled by McCrindle (*Ancient India*) were as follows :—

TABLE NO. XVII

| <i>Imported articles.</i> | <i>Denarii.</i> | <i>Shillings.</i> | <i>Pence.</i> | <i>Farthings.</i> |
|---------------------------------|-----------------|-------------------|---------------|-------------------|
| Ginger | 6 a pound | 4 | 4 | 2 |
| Pepper | 6 „ | 4 | 4 | 2 |
| Long pepper | 15 „ | 10 | 11 | 1 |
| White pepper | 7 „ | 5 | 1 | 1 |
| Black pepper | 4 „ | 2 | 11 | 0 |
| Bdellium | 3 „ | 2 | 2 | 1 |
| Costus (white) | 5 „ | 3 | 7 | 3 |
| Nard oil (spike-nard) | 100 „ | 72 | 11 | 0 |
| Amomum grape | 60 „ | 43 | 8 | 0 |
| Cardamum | 3 „ | 2 | 2 | 1 |

(iii) *Prices of pearls and precious stones*

(a) *Prices of Pearls.*—According to Varāhamihira the prices of pearls in India in his time were as follows ¹ :—

¹ Pala-daśa-bhāgo dharaṇam tad yadi muktās trayodaśa surūpāḥ
 Trisatī sapaiṇa-viṃśā rūpaka-saṃkhyā kṛtaṃ mūlyam. 13.
 Śoḍaśakasya dviśatī viṃśatirūpasya saptatiḥ saśatā
 Yat pañca-viṃśati-dhṛtaṃ tasya śataṃ triṃśatā sahitaṃ. 14.
 Triṃśat saptati-mūlyam catvāriṃśac-chatārdha-mūlyam ca

TABLE NO. XVIIIa

| Names of different strings of pearls. | Weight in guñjās. | Number of pearls in a string. | Prices in kārṣāpaṇas |
|---------------------------------------|-------------------|-------------------------------|----------------------|
| Pikkā | 32 | 13 | 325 |
| Piccā | 32 | 16 | 200 |
| Arghā | 32 | 20 | 170 |
| Ardhā | 32 | 25 | 130 |
| Ravaka | 32 | 30 | 70 |
| Sikthā | 32 | 40 | 50 |
| Nigarā | 32 | 55 | 40 |
| Cūrṇā | 32 | 80 | 30 |
| ” | 32 | 95 | 25 |
| ” | 32 | 200 | 12 |
| ” | 32 | 300 | 6 |
| ” | 32 | 400 | 5 |
| ” | 32 | 500 | 3 |

Weight of pearl. Prices in kārṣāpaṇas.

| | |
|-----------|------|
| 4 māṣakas | 5300 |
| 3½ ” | 3200 |
| 3 ” | 2000 |
| 2½ ” | 1300 |
| 2 ” | 800 |
| 1½ ” | 353 |
| 1 māṣaka | 153 |
| 4 guñjās | 90 |
| 3 ” | 70 |
| 2½ ” | 35 |

Ṣaṣṭiḥ pañconā vā dharaṇaṃ pañcāṣṭakaṃ mūlyam. 15.

Muktāśītyā triṃśac-chatasya sa-pañca-rūpaka-vihinā

Dvi-tri-catuh-pañca-śatā dvādaśa-ṣaṭ-pañcaka-tritayam. 16.

p. 992.

Pikkā piccārghārdhā ravakaḥ siktham trayodaśādyānām

Samjñāḥ parato nigarāś cūrṇāś cāśīti pūrvānām. 17.

p. 993.

Māṣaka-catustaya-dhṛtasyaikaṣya śatā hatā tripañcāśat

Kārṣāpaṇā nigaditā mūlyam tejo guṇa-yutasya. 9.

Māṣaka-dala-hānyāto dvātriṃśad viṃśatis trayodaśa ca

Aṣṭau ca śatāni śata-trayaṃ tripañcāśatā sahitam. 10.

Pañca-triṃśam śatam iti catvāraḥ kṛṣṇalā navati-mūlyāḥ

Sārdhās tisro guñjāḥ saptati-mūlyam dhṛtaṃ rūpam. 11.

Guñjā-trayasya mūlyam pañcāśadrūpakā guṇayutasya

Rūpaka-pañca-triṃśat-trayasya guñjārdha-hīnasya. 12.

p. 991.

(*Bṛhat-saṃhitā* by Varāhamihira, E. J. Lazarus and Co., Benares, 1895, part ii.)

(b) *Prices of gems.*—The following prices of pure, transparent and illuminating gems are given by Varāhamihira ¹ :—

TABLE NO. XVIII_B

| <i>Weight of gem.</i> | | <i>Price in kārṣāpaṇas.</i> |
|-----------------------|------------------|-----------------------------|
| 1 | pala (Padmarāga) | 26,000 |
| $\frac{1}{2}$ | " " | 12,000 |
| 3 | kārṣa | 20,000 |
| 1 | kārṣa | 6,000 |
| 8 | māṣakas | 3,000 |
| 4 | " " | 1,110 |
| 2 | " " | 500 |

As to the prices of diamonds the following list is given by the same authority.

| <i>Weight of diamond.</i> | <i>Price in kārṣāpaṇas.</i> |
|---------------------------------|-----------------------------|
| 18 taṇḍulas (or grains of rice) | 150,000 |
| 20 " " | 200,000 |
| 16 " " | 133,000 |
| 14 " " | 100,000 |
| 12 " " | 66,667 |
| 10 " " | 40,000 |
| 8 " " | 12,000 |
| 6 " " | 8,000 |
| 4 " " | 2,000 |

¹ Śaḍviṃśatīḥ sahasrāṇy ekasya maṇeḥ pala-pramāṇasya
Kārṣa-trayaṣya viṃśatir upadiṣṭā padmarāgasya. 7.
Ardha-palasya dvādaśa kārṣaṣyaikasya ṣaṭ sahasrāṇi
Yac cāṣṭa-māṣaka-dhṛtaṃ tasya sahasra-trayaṃ mūlyam. 8.
Māṣaka-catustayaṃ daśa-śata-krayaṃ dvau tu pañcāśata mūlyau
Parikalpyam antarāle mūlyam hinādihika-guṇānām. 9.

(Ibid., p. 1000.)

[Commentary.]

Ardha-palasya dvādaśa-sahasrāṇi mūlyam. Ekasya kārṣaṣya ṣaṭ sahasrāṇi. Yaṣ ca padmarāgo'stābhīr māṣakair dhṛtas tulitas tasya sahasra-trayaṃ rūpakāṇām mūlyam. 8.

(Ibid., p. 1001.)

Sita-sarṣapāṣṭakaṃ taṇḍulo bhavet taṇḍulais tu viṃśatyā
Tulitasya dve lakṣe mūlyam dvi dyūnite caitat. 12.
Pāda-tryaṃśārdhonaṃ tribhāga-pañcāṃśa-ṣoḍaśāṃś ca
Bhāgaś ca pañca-viṃśaḥ śatikas sāhasrikaś ceti. 13.

(Ibid., p. 986-7.)

See also *Garuḍa-purāṇa*, Adhyāyas 68-80.

(iv) *Prices of jewellery in the Cola country circa A.D. 1100.*

TABLE NO. XIX

(a) One sacred *mukuta* (crown), containing :—

348 karañju $\frac{1}{2}$ — $\frac{3}{16}$ mañjāḍi gold
 859 diamonds weighing $7\frac{3}{4}$ karañju $4\frac{3}{16}$ mañjāḍi
 309 large and small rubies and other stones
 125 *halahalam* of superior quality
 122 *halahalam*
 41 bluish rubies (nilagandhi)
 10 unpolished rubies = weighing $14\frac{3}{4}$ karañju $7\frac{3}{16}$ mañjāḍi
 669 large and small pearls = weighing 36 karañju 1 mañjāḍi 1 kunṛi.

Total weight of the crown = 407 karañju 9 mañjāḍi. Price 5,000 kāṣu. (*SII.*, vol. ii, No. 7, p. 81.)

(b) One ear-ring (*vāli*), containing :—

1 karañju $8\frac{3}{16}$ mañjāḍi gold
 9 pearls weighing 1 karañju $\frac{9}{16}$ mañjāḍi

Total weight of the ear-ring = 2 karañju $9\frac{7}{16}$ mañjāḍi. Price 15 kāṣu. (*SII.*, vol. ii., No. 7, p. 82.)

(c) One *vruttu*, containing :—

2 karañju and 1 kunṛi of gold
 6 diamond crystals weighing $\frac{9}{16}$ mañjāḍi
 2 smooth rubies weighing $\frac{1}{16}$ mañjāḍi
 2 pearls weighing 9 and $\frac{7}{16}$ mañjāḍi.

Total weight of the *vruttu* = $2\frac{1}{2}$ karañju and $1\frac{7}{16}$ mañjāḍi.
 Price 15 kāṣu. (*Ibid.*)

(d) One sacred garland (*tiru-malai*), containing :—

$86\frac{1}{2}$ karañju and $4\frac{3}{16}$ mañjāḍi of gold
 505 diamonds weighing 2 karañju $3\frac{9}{16}$ — $\frac{1}{16}$ mañjāḍi
 110 large and small rubies weighing $5\frac{3}{4}$ — $\frac{1}{4}$ karañju
 94 strung pearls weighing 9 karañju and 1 kunṛi.

Total weight of the garland = $103\frac{1}{2}$ karañju and 1 mañjāḍi. Price 1,000 kāṣu. (*Ibid.*)

(e) One sacred armlet containing :—

89 karañju $1\frac{1}{16}$ — $\frac{1}{16}$ of gold
 441 diamonds weighing 3 karañju and $2\frac{3}{16}$ mañjāḍi
 54 large and small rubies weighing $6\frac{1}{2}$ karañju $2\frac{3}{16}$ mañjāḍi
 68 strung pearls weighing $5\frac{3}{4}$ karañju 3 mañjāḍi and 1 kunṛi.

Total weight of the sacred armlet = $104\frac{1}{2}$ karañju and 4 mañjāḍi.
 Price 1,250 kāṣu. (*Ibid.*, p. 83.)

(f) One sacred pearl ornament, containing :—

$69\frac{3}{4}$ karañju $2\frac{5}{16}$ — $\frac{1}{16}$ mañjāḍi of gold
 309 diamonds weighing $1\frac{1}{2}$ karañju $4\frac{6}{16}$ mañjāḍi
 80 large and small rubies weighing 6 karañju $7\frac{3}{16}$ — $\frac{3}{16}$ mañjāḍi
 1,462 pearls weighing $96\frac{1}{4}$ karañju.

Total weight of the pearl ornament = $174\frac{1}{4}$ karañju. Price 1,500 kāṣu. (*Ibid.*)

(g) One *poṭṭu* for the arm of the goddess, containing :—

$18\frac{1}{2}$ karañju $3\frac{3}{16}$ mañjāḍi of gold
 1 smooth ruby weighing 1 mañjāḍi 1 kunṛi
 137 strung pearls weighing $7\frac{3}{4}$ karañju $4\frac{3}{16}$ mañjāḍi.

Total weight of the *poṭṭu* = $26\frac{3}{4}$ karañju $4\frac{3}{16}$ mañjāḍi. Price 80 kāṣu. (*Ibid.*, p. 83.)

(h) One bracelet, containing :—

84 $\frac{3}{4}$ karañju 3 mañjādi of gold

675 diamonds weighing 4 karañju 4 mañjādi 1 kunri.

60 large and small rubies weighing 1 $\frac{1}{2}$ karañju 3 mañjādi 1 kunri.

Total weight = 90 $\frac{3}{4}$ karañju 1 mañjādi. Price 800 kāsū. (Ibid., p. 84.)

(i) *Ekāvali* (single-string), containing :—

35 old pearls, 2 corals, 2 lapis lazuli, 1 talimbam, 1 padugan, 1 kokkuvay

Total weight = 4 karañju 8 $\frac{1}{10}$ mañjādi. Price 11 kāsū. (Ibid., p. 73.)

(j) One sacred girdle, containing :—

97 $\frac{1}{2}$ karañju 4 $\frac{6}{10}$ mañjādi of gold

667 large and small diamonds weighing 2 karañju $\frac{1}{4}$ — $\frac{6}{10}$ mañjādi

83 large and small rubies weighing 10 $\frac{3}{4}$ karañju 3 $\frac{2}{10}$ mañjādi

212 pearls weighing 18 karañju 2 mañjādi.

Total weight = 129 karañju $\frac{7}{10}$ mañjādi. Price 4,500 kāsū. (Ibid., No. 8, p. 87-8.)

(k) One ring (anklet ?) for the foot of the goddess, containing :—

73 karañju 3 $\frac{1}{10}$ — $\frac{1}{10}$ mañjādi of gold

455 diamonds weighing 1 $\frac{1}{2}$ karañju 2— $\frac{6}{10}$ — $\frac{1}{10}$ mañjādi.

39 rubies weighing 4 karañju $\frac{1}{10}$ mañjādi.

Total weight of the ring = 78 $\frac{3}{4}$ karañju 1 $\frac{6}{10}$ mañjādi. Price 500 kāsū. (Ibid., p. 88.)

(l) One *sayalam* for the foot of the goddess, containing :—

37 $\frac{3}{4}$ karañju 3 $\frac{1}{10}$ mañjādi of gold

360 diamonds weighing $\frac{3}{4}$ karañju 4 mañjādi

72 rubies weighing 2 $\frac{1}{2}$ karañju 2 $\frac{6}{10}$ mañjādi

42 pearls weighing 2 karañju 8 mañjādi 1 kunri.

Total weight = 43 $\frac{3}{4}$ karañju 3 mañjādi 1 kunri. Price 350 kāsū. (Ibid.)

(m) One sacred crown (*mukuta*) containing :—

270 karañju 8 $\frac{2}{10}$ mañjādi of gold

525 diamonds weighing 2 karañju 3 $\frac{5}{10}$ — $\frac{1}{10}$ mañjādi

227 crystals weighing 5 karañju 4— $\frac{1}{10}$ mañjādi

16 strung pearls weighing 1 $\frac{1}{2}$ karañju 4— $\frac{2}{10}$ — $\frac{1}{10}$ mañjādi

385 strung pearls weighing 13 karañju 7 mañjādi

Total weight = 229 $\frac{3}{4}$ karañju 2— $\frac{7}{10}$ — $\frac{1}{10}$ mañjādi. Price 700 kāsū. (III., vol. ii, No. 8, p. 90.)

CHAPTER V

POPULATION OF THE COUNTRY



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POPULATION OF THE COUNTRY

NO definite figure can be suggested for the population of ancient India. Perhaps because the people in those days did not attach much importance to this question, the Samskr̥ta and Pāli literatures give us no information on the point.

For the purpose of revenue collection, however, lists of estates were kept in the record department. It appears that the size of an estate (*grāma*) was governed by the possession of a *kula* (the family of a *sāmanta*). Hypothetically each *sāmanta-kula* was considered to be the owner of an estate (*grāma*) which contained pasture, fallow and cropped land. It is rather interesting that the same word *kula* was used to denote an area of land which could be ploughed by two yokes of oxen ; the seed sufficient for sowing this area was called *kulya* ; and a person belonging to a *sāmanta-kula* was expressed by the word *kulīna*, meaning "nobleman", and a lady by the word *kula-duhitṛ*, etc.

After taking all these facts into consideration, we can read the numbers of estates (*grāmas*) as the numbers of *sāmanta-kulas* (families) and *vice versa*. It has already been calculated roughly that ancient India consisted of 7,000,000 *grāmas* (estates), and that each *grāma* represented from fifteen to twenty persons. Multiplying 7,000,000 by fifteen and twenty we would arrive at a total population for ancient India of between 105,000,000 and 140,000,000.

According to the Buddhist books, Vaiśālī contained 7,707 *rājans* (estate-owners).¹ If we may presume that by Vaiśālī the *janapada* of Vaiśālī is meant, and calculating at the rate of ten *janapadas* to a *deśa* (country), this would mean that there

¹ Chapter VI, Note 8.

were about 77,070 *rājans* or *sāmantas* (estate-owners) in the *deśa* in which Vaiśālī was included. If that *deśa* again can be regarded as an average-sized country, this would mean that the whole of ancient India (with its eighty-four *deśas*) contained about 6,473,880 *rājans* or *sāmantas*. Taking from fifteen to twenty persons for each estate, the population of the whole of India would come to between 100 and 130 millions. The total population of Vaiśālī *janapada* is given in Buddhist books as 168,000.¹ Multiplying this by 840, we get the population of India as 141,120,000, or in round numbers 140 millions. We should note here that the *janapada* of Vaiśālī, owing to its fertility, was probably more thickly populated than many other *janapadas*.

It has already been suggested that each estate contained on a rough average 80 acres of land, of which 15 to 20 acres may perhaps be taken as being under cultivation. According to Mr. Moreland "at the beginning of the present century there were from 100 to 120 persons to each 100 acres of 'normal cultivation' in some of the western districts of the United Provinces, while there were from 60 to 70 persons to 100 acres in other districts lying further south; the difference between these figures is adequately explained by permanent features of environment, and the conclusion is that it has probably persisted with relatively little change, and that the western districts required somewhere about 100 to 120 persons, and the southern somewhere about 60 to 70 persons to cultivate 100 acres in the time of Akbar and throughout the intervening period."² According to the *Dāna-mayūkha* also the *go-carma*, equivalent to about two-thirds of an acre, was sufficient to provide one person with food.³ It will not be unreasonable, therefore, if we make an estimate of the population on the basis of one person to each cultivated acre. Multiplying

¹ *Hindu Polity*, by K. P. Jayaswal, p. 51, n. 5.

² W. H. Moreland's *India at the Death of Akbar* (1920 ed.), pp. 110-11.

³ Chapter III, p. 83, Note 1.

7,000,000 *grāmas* by fifteen and twenty, we get 105,000,000 and 140,000,000 acres of land under cultivation, or say the same numbers of people living in India.

In estimating the population of a country from its maximum war strength we must keep this fact before our sight, that two out of the four classes of the people provided no fighting men in those days. There is no doubt that the *śūdras* and *kṣatriyas* formed a large proportion of the population; the former included all the industrial, agricultural and labouring classes, and the latter only landowners, officials and soldiers. After careful study of the economic condition of ancient India, I come to the conclusion that perhaps each *rājan* or *sāmanta-kula* was required to provide one soldier in time of war, when demanded by the king. According to the *Mahābhārata* the whole of India took part in the great war. We may perhaps assume that to bring the grand total of forces engaged on that occasion up to eighteen *akṣauhiṇīs*, each country was represented by its full fighting strength. Eleven *akṣauhiṇīs* were on the side of the Kauravas and seven on the side of the Pāṇḍavas.¹ Whoever wrote about this war, there is no doubt that he knew the conditions of the country accurately. His figures for the rival armies will be found upon investigation to correspond in a significant measure with the number of estates (*grāmas*) given above. One *akṣauhiṇī* of the army is defined in Samskr̥ta dictionaries as containing 21,870 elephants, 21,870 chariots, 65,610 horses, and 109,350 foot.² Taking five persons to each elephant and chariot, the total strength of each *akṣauhiṇī* comes approximately to 400,000. If we multiply this by eighteen, we get the total war strength of India at that time as 7,200,000 men. It has already been calculated that the number of *grāmas* (estates) in ancient India was approximately 7,000,000. The correspondence between two figures conveys the impression that

¹ Ekādaśaitāh śrī-justā vāhinyas tava pārthiva. 25.

Pāṇḍavānām tathā sapta mahāpuruṣa-pālītāh. 26.

(*Mahābhārata*, *Bhīṣma-parvan*, Adhyāya 16, p. 25.)

² See *Akṣauhiṇī* in Monier Williams's Sanskrit-English Dictionary.

ancient India had reached a stage of civilization in some respects very similar to the feudal system of Europe. Each *rāja-kula* or *sāmanta-kula* was obliged to be represented in the time of war. Possibly the distribution of land was based on this principle. If we may assume that on the average each *grāma* (estate), or each fifteen to twenty persons of the population, furnished one fighting man, we should arrive at a total population, as calculated from the war strength of the country, of between 108,000,000 and 144,000,000.

The authenticity of the figures in the *Mahābhārata* relating to the forces engaged in the great war may be tested by the facts given by Greek historians. It has been explained that ancient India was divided into eighty-four countries (*deśas*). Dividing eighty-four by eighteen, we get one *akṣauhini* for every four and two-thirds countries or in round numbers every five countries. According to the Greek historians the armies of the eight countries which gave battle to Alexander the Great were as below :—

TABLE NO. XX

THE WAR STRENGTH OF THE EIGHT ANCIENT INDIAN COUNTRIES
ACCORDING TO THE GREEK HISTORIANS

| Countries. | Foot-soldiers. | Cavalry. | Chariots. | Elephants. | Authority : McCrindle's " Invasion of India." |
|---------------------------|----------------|----------|-------------|------------|--|
| 1. Malloi and Sudracæ . | 90,000 | 10,000 | 900 (700 ?) | ? | p. 252, 234 |
| 2. Aphrikes . | 20,000 | 10,000 | ? | 15 | p. 272 |
| 3. Porus . | 50,000 | 3,000 | 1,000 | 130 | p. 278 |
| 4. Agalassian . | 40,000 | 3,000 | ? | ? | p. 285 |
| 5. Kingdom next to Sibi . | 40,000 | ? | ? | ? | p. 232 |
| 6. Assakenians . | 30,000 | 20,000 | ? | 30 | p. 66 |
| 7. Ambri and Sigambri . | 80,000 | 60,000 | ? | ? | p. 324 |
| 8. Cuphitas . | 200,000 | ? | ? | ? | p. 323 |
| Total . | 550,000 | 96,000 | 1,900 | 175 | |

(a) Total man-power of eight countries = 550,000 + 96,000 + 54,000 (approximate figures for chariots and elephants) = 700,000.

(b) Total man-power of 84 countries, or of the whole of India = $\frac{700,000}{8} \times 84 = 7,350,000$ (= 18 akṣauhiniṣ).

From the above table it is clear that the fighting strength of the eight ancient Indian countries comes to 550,000 foot, 96,000 cavalry, 1,900 (?) chariots, and 175 (?) elephants, or in round numbers approximately 700,000. On this basis the fighting-strength of four and two-thirds countries would be 408,333, or in round numbers 400,000. If we divide 700,000 by eight and multiply the quotient by eighty-four, we get the war strength of the whole of India as 7,350,000. According to the *Mahābhārata* the war strength of four and two-thirds countries and of the whole of India was nearly the same as calculated from the figures furnished by the Greek historians, namely 400,000 and 7,200,000 respectively. An estimate based upon the figures given in the *Āīn-i-Akbarī* leads to a remarkably similar conclusion. In the time of Akbar the man-power of forty-seven *sarkārs*, according to Abu 'l-Fazl was as shown below :—

TABLE NO. XXI

THE WAR STRENGTH OF THE FORTY-SEVEN SARKĀRS, ACCORDING
TO THE *Āīn-i-Akbarī*

| Name of Sūba. | No. of sarkārs. | No. of parganas. | Cavalry. | Infantry. | <i>Āīn-i-Akbarī</i> , vol. ii. |
|---------------|--------------------|---------------------|----------|-----------------------|-----------------------------------|
| Bihar . . . | 7 | 199 | 11,415 | 449,350 | p. 153 |
| Allahabad . . | 10 | 177 | 11,375 | 237,870 | p. 160 |
| Oudh . . . | 5 | 38 | 7,640 | 168,250 | p. 173 |
| Malwa . . . | 12 | 301 | 29,668 | 470,361 | p. 198 |
| Delhi . . . | 8 | 232 | 31,490 | 242,310 | p. 285 |
| Lahore . . . | 5 | 234 | 54,480 | 426,086 | p. 315 |
| Total . . . | 47 | 1,181 | 146,068 | 1,994,227 = 2,140,295 | |

(a) Total man-power of the whole of India calculated from the figures given in the *Āīn-i-Akbarī* = $\frac{2,140,295}{47} \times 84 \times 2 = 7,650,384$ approximately (= 18 akṣauhiṇīs).

(b) Total man-power of $4\frac{2}{3}$ countries = 428,059 approximately (= one akṣauhiṇī).

Thus the fighting strength of forty-seven *sarkārs* in the time of Akbar was approximately 2,140,295 (i.e. 146,068 cavalry, 1,994,227 infantry). It has already been computed that two *sarkārs* of Akbar may be taken as equal to one ancient Hindu country (*deśa*). On dividing 2,140,295 by

forty-seven and multiplying the quotient by 84×2 , the manpower of the whole of India would come to 7,650,385, or in round numbers about 7,500,000. According to Abu'l-Fazl "the Zamindars of the country furnish more than four millions, four hundred thousand men" (the *Āin-i-Akbarī*, vol. i, p. 231) and the empire of Akbar "consisted of one hundred and five *Sarkārs*". (The *Āin-i-Akbarī*, vol. ii, p. 115.) Dividing 4,400,000 by 105 and multiplying the quotient by 168 ($= 84 \times 2$), we get the war strength of the whole of India as 7,040,000.

Thus we arrive at very similar figures from different sources. Seldom do we find authorities so diverse in their nature as the *Mahābhārata*, the Buddhist books, the Greek accounts, palæographic evidence and the *Āin-i-Akbarī* furnishing such similar facts and figures. Had India already been surveyed in the time of Candragupta Maurya? Were details of the country well known to the Emperor Aśoka, who erected pillars all over the land and sent Buddhist missionaries to Ceylon? Should most of the credit which is usually given to Sher Shāh and Todar Mal for the settlement of the land really be given to someone else?

Adopting the above methods of arriving at an estimate of the total population, it would seem to have lain between 100,000,000 and 140,000,000; but it cannot be too clearly stated that this estimate must only be regarded as a conjectural approximation.

As far as can be ascertained from the evidence available to us, I am inclined to think that the population of the country as a whole did not greatly vary between the early Hindu period and the first advent of the Muhammadans, and it may be supposed to have lain roughly between the above limits.

The people of ancient India may be regarded as divided into two main classes: (1) the upper orders, often described as the 'twice-born' classes, and (2) the lower orders, or the 'masses', a term which comprises a vast population of diverse origins generally included in the comprehensive

title *śūdra*. In the ancient fabric of Indian society there was no separate group comprising the 'middle classes' as this expression is ordinarily understood in English. The absorption of western ideas of recent years may have led to the application of this term to certain strata of the population which appear to correspond with the middle classes so-called in Europe; but the distinction is really foreign to the Indian genius. No account of the social structure of ancient India would be complete without reference to the commercial and trading classes. Certain aspects of their organization have already been the subject of careful study; but the economic conditions under which commerce and trade were carried on, the cost of production, prices realized, the taxes, tolls, and port dues paid, the organization of industries and the distribution of wealth, etc., have not yet been dealt with on a thorough or scientific basis. The subject is one that would call for a separate and lengthy treatise. Moreover, the centres of trade and commerce were the large cities and towns, with which the present work is not directly concerned. In the present thesis I concentrate attention upon the main orders, and deal with the two most representative sections thereof, namely, (1) the landowning, aristocratic or ruling classes, and (2) the working or labouring classes as a whole.

CHAPTER VI

THE LANDOWNING CLASSES



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THE LANDOWNING CLASSES

AT the close of Chapter I a rough estimate of 7,000,000 was given of the total number of *grāmas* (estates) in ancient India, based upon evidence derived from a variety of sources. What was the position in society of the owners of those *grāmas*, and what power did they possess to protect themselves and their estates against the high-handedness of the royal servants, policemen, etc. ?

As far as the Buddhist story-books are concerned, it appears that these 'estate' owners were called *rājans*, *rājānakas*, *amātyas*, *rājanyakas*, *sāmantas*, *maulas*, *rāyas*, *gaṇas*, *gaṇa-rāyas*, *bhojas*, *kulaputras*, *kṣatriyas*, *rājaputras*, etc. The eighty-eighth story of the *Avadāna-śataka* connected with Kapphiṇa, the king of a country in Southern India, is most interesting. The king is described therein as surrounded by 18,000 *amātyas* (counsellors or courtiers). Seeing so many around him, he became proud, and asked, "Is there any more powerful king than I ?" "No," replied the *amātyas*. Shortly afterwards he received some presents from traders coming from Central India. He inquired about the government of their country. They replied that some countries (*deśa*) were governed by *rājans* and some by *gaṇas*.¹ It appears to

¹ Athāpareṇa samayena rājā mahākapphiṇo'stādaśāmātya-sahasra-parivṛto mrga-vadhāya nirgataḥ. Purastāt prsthataś ca sarva-balaugham avalokyāmātyān āmantrayate. Asti bhavantaḥ kasyacid evaṃrūpo balau-ghas tadyathā mamaivaitarhiti. Tataḥ priyavādibhir amātyair abhihitam. Deva nānyasya kasyacid iti. Atha madhyadeśād vaṇijo dakṣiṇā-pathaṃ gataḥ. Tai rājño mahākapphiṇasya prābhṛtam upanitam. Rājñā uktā bho vaṇijaḥ kas tatra rājeti. Vaṇijaḥ kathayanti. Deva kecid deśā gaṇādhiṇāḥ kecid rājādhiṇā iti. . . . Etad vacanam upaśrutyā ṣaṇmahā-nagaravāsino rājāno bhītās trastāḥ aṃvignā āhrṣṭa-romakūpāḥ saṃgamya samāgamya ekasamūhena śrāvastīm anuprāptāḥ. . . . Tataḥ kapphiṇo rājāstādaśāmātya-sahasra-parivṛto'nupūrveṇa cañcūryamāṇaḥ śrāvastīm anuprāptāḥ. Prātisimāś ca rājāno rājānam mahākapphiṇaṃ pratyudgataḥ. Tair mahāsatkāreṇa nagaraṃ praveśitam. . . .

me that the distinction here indicated is between rule by individual nobles (*rājan*) and rule by territorial groups (*gaṇa*). Further on in the same story we find mention of *rājans* of towns, and of *rājans* residing in the court. The opening sentence of each story of the *Avadāna-śataka* mentions that Buddha was honoured by the *rājans*, *rāja-mātras*, etc.¹ In the *Aupapātika-sūtra ugras*, *bhojas*, *nāgas*, *kauravas*, *ikṣvā-kavas* are grouped together with the *rājanyakas* and *rājānakas* (*rāiṇṇa o nāya*).²

The Greek historians mention a state in the Panjab that was governed by 5,000 aristocrats, who exercised their authority with justice and moderation.³ By aristocrats they appear to mean *sāmantas* or *rājans* (nobles). According to these historians the kingdom of Porus contained 5,000 cities, villages, and towns.⁴ In other words, it probably contained 5,000 *grāmas* (estates) and a corresponding number of *sāmantas* or *rājans* who owned these estates. India also, like Greece, had cultivators, tenants, sub-tenants, landless labouring classes, day-labourers, slaves, etc., who possessed no political power. The whole of India was under the grip of powerful families of nobles (*sāmantas*). We learn that the Andhaka-vṛṣṇi league was controlled by the powerful families of Śvāphalka, Caitraka, Śini, Vāsudeva, etc. Pāṇini, Kātyāyana, and Patañjali mention the Andhaka-vṛṣṇis as agricultural communities containing few of the above-

¹ (*Avadāna-śataka*, part ii, pp. 103-4.)

Buddho bhagavān satkṛto gurukṛto mānitah pūjito rājabhī rājamātrair dhanibhiḥ pauraḥ śreṣṭhibhiḥ. . . (Ibid.)

² Teṇaṃ kālēṇaṃ teṇaṃ samaeṇaṃ samaṇassa bhagavaṃ mahāvīrassa amtevāsi bahave samaṇā bhagavaṃto appēgaiyā uggapavaiyā bhogapavaiyā rāiṇṇa. nāya koravva. khattiapavvaiyā bhaḍā johā senāvai pasatthāro seṭṭhī ibbhāṇṇe ya bahave evamāṇo uttama-jāti-kula-rūpa-viṇaya-viṇṇāvaṇṇa-lāvaṇṇa-vikkama-pahāṇa-sobhaggakamṭijuttā . . . viharamṭi. (*Aupapātika-sūtra*, fol. 26.)

³ *IIR.*, p. 121, Megasthenes, p. 67. Quoted by K. P. Jayaswal in his *Hindu Polity*. See p. 84.

⁴ McCrindle's *Invasion of India by Alexander the Great*, p. 309.

mentioned powerful nobles. Vāsudeva, it appears, had a good following, and became very powerful.¹

Kauṭalya uses the word *saṃgha* to signify a class; and the expression *sāmanta* is often used by him evidently in the sense of the 'class of *sāmantas*'—the ruling class or patrician class, so to speak. The *śreṇīs*, *kṣatriyas*, etc., of Kāmboja and Surāṣṭra were devoted to trade, or service in the army as hired soldiers. The countries of the Licchavi, Vṛji, Malla, Madra, Kukuru, Kuru, and Pāñcāla peoples were under the heel of the nobles. Kauṭalya expresses their mode of living by the term *rājan*.² At first sight this expression seems very strange; but a careful study of the economic condition of that period will show that it is only natural. Even nowadays, when inquiry is made of a man's profession, the answer given is often—he is a gentleman, or he is a *ṭhākura*, *rāṇā*, *rāva*, or a *navāb*.

As far as the *janapada* of Vaiśālī was concerned, it was entirely under the control of noble families (*rāja-kulas*) of Licchavis. Its political condition was very much the same as that of England after the Norman conquest. The population of Vaiśālī *janapada* was about 168,000, and the number of *rājans* (estate-owners) about 7,707.³ The government officers, presidents, vice-presidents, chancellors of the exchequer, courtiers, etc., were selected from these *rājans*.⁴

¹ Rājanyavācīnām bahuvacanāntānām yo dvando'ndhaka-vṛṣṇiṣu vartate tatra pūrvapadaṃ prakṛti-svaram bhavati. Svāphalka-caitrakāḥ (after Dikṣita), śini-vāsudevāḥ. . . . Andhaka-vṛṣṇaya ete na tu rājanyāḥ. Rājanya-graṇam ihābhīkṣikṭa-vaṃśyānām kṣatriyānām graṇanārtḥam. Ete ca nābhīkṣikṭa-vaṃśyāḥ. . . . Bahuvacana-graṇam kim. Saṃkarṣaṇa-vāsudevan. (*Kāśikā*, pp. 546-7; see K. P. Jayaswal's *Hindu Polity*, p. 41, note 1.)

² Saṃgha-lābho daṇḍa-mitra-lābhānām uttamah. . . . Kāmboja-surāṣṭra-kṣatriya-śreṇyādayo vārtā-śāstropajīvināḥ. Licchavika-vṛjika-mallaka-madraka-kukura-kuru-pāñcālādayo rāja-śābdopajīvināḥ. (The *Artha-śāstra* of Kauṭalya, p. 378.)

³ Tattha niccakālaṃ rajjaṃ karetvā vasamtānaṃ yeva rājūnaṃ satta-sahassāni sattaśatāni satta ca (.) rājāno homti tattaka; yeva uparājāno tattakā senāpatino tattakā, tattakā bhaṃḍāgarikā. (*Jātaka*, I, 504; quoted by K. P. Jayaswal in his *Hindu Polity*, p. 51, notes 4 and 5.)

⁴ *Hindu Polity*, by K. P. Jayaswal, pp. 45-8.

"Amongst them," says the *Lalita-vistara*, "the rule of showing respect to the highborn, the middle ones, the oldest, the elders is not observed; every one considers himself to be the rājan, 'I am the rājan, I am the rājan.'"¹

At the time of the Buddha there was talk about the Vaiśālī federation (*gaṇa*). The popular opinion was that the *gaṇas*, or federations of powerful ruling families (*rāja-kulas*), could not last long. One noble, actuated by jealousy or greed, oppressed another, either by military force or through the police (*cāra*), or by intrigue, or by employing the policy of conciliation, subsidy, and division. Once divided, the federations become an easy prey to an enemy, and perish.²

The Śākya of Kapilavastu, the Koliyas of Rāmagrāma, the Videhas of Mithilā, the Mallas and Vṛjis of Kuśinagara and Pāvā, and the Morias of Pippalivana, all these noble families (*rāja-kulas*) were united under a federation called *gaṇa*. In the Panjab the federations of Kāthians (*Kāthakas*), Adraistai (*Ariṣṭas* ?), Oxydrakai (*Kṣudrakas*), Malloi (*Mallas* ? or *Mālavas* ?), Abastanoi (*Ambaṣṭhas* ?), Xathroi (*Kṣatriyas*), Glausai or Glaukanikai (*Glauchukāyanakas* ?) were very powerful. In fact, the whole of India was under the control of nobles. In a part of Southern India they were designated *Kerala-putto*, or *Kerala-putras*. Before the Muhammadan conquest the *rāja-putras* of Central India had attained special prominence. The *rājānakas* of the inscriptions, the *rājans*

¹ Nocca-madhya-vṛddha-jyeṣṭhānupālītā, ekaika eva manyate ahaṃ rājā ahaṃ rājeti . Na kasyacīc chīsyatvam upagacchati. . . . (*Lalita-vistara*, sarga iii, p. 21.)

² From Gaṇānāṃ vṛttim icchāmi śrotuṃ matimatām vara. 6.
Yathā gaṇāḥ pravarddhante na bhidyante ca bhārata. . . .

To Bhedaḥ caiva pradānāc ca bhindyante ripubhir gaṇāḥ. 31.

Tasmāt saṃghātam evāhur gaṇānāṃ śaraṇaṃ mahat. 32.
(*Mahābhārata*, *Sāntiparvan*, sarga 107.)

Read the passages and authorities quoted by K. P. Jayaswal in his *Hindu Polity*, pp. 64-79 and 48-55 in the light of the interpretation given above.

of the Licchavis, and the *sāmantas* of Kauṭalya's *Arthaśāstra* refer to the same class of people.

It appears that, owing to these *sāmantas*, the political condition of the country was very unsettled. No *janapada* was free from them.

Frequently they held secret relations with thieves, wild people, and foreigners. "In the absence of such sources (e.g. mines, forests, pastures, etc.) of his own," writes Kauṭalya, "he (*sāmanta*) should acquire them from some one among his relatives and friends. If he is destitute of an army, he should, as far as possible, attract to himself the brave men of corporations (*śreṇis*), of thieves (*cora-gaṇa*), of wild tribes, of *mlecchas*, of spies (*gūḍha-puruṣa*) who are capable of inflicting injuries upon enemies."¹ The soldiers in the service of these *sāmantas* are mentioned in the *Praśna-vyākaraṇāṅga-sūtra* by the word *pāikka*; and it is stated that "these *pāikkas* (*pāyikas*) belong to the class of thieves, as their commanders (*senāpati*) encourage the bands of robbers and outlaws. They live in forts situated amidst the forests and hills. They can be recognized easily by their dress, which is of black, green, red, yellow and white colours. They wear their own special belts without numbers. Impelled by greed, they attack the country and estates belonging to others; they plunder the cargoes of ships in distress, owing to storms, etc."² People were so afraid of them that it was

¹ Teṣāṃ alābhe bandhu-mitra-kulebhyah samārjanam utsāhahīna-śreṇī-pravīra-puruṣāṇām cora-gaṇātavika-mleccha-jātinām parāpakāriṇām gūḍha-puruṣāṇām ca yathālābham upacayam kurvita. (*Kau. Artha.*, p. 306; English translation, p. 362.)

² Avare pāikka-cora-saṃghā senāpati-cora-vamda-pāgaḍḍhikā ya aḍavi-
desa-duggavāsī kīla-harita-ratta-pīta-sukilla-aṇega-saya-cimḍha-paṭṭa-
baddhā para-visayae abhihaṇamti luddhā dhanassa kajje rayanāgara-
sāgarāṃ ummī-sahassa-mālālūkula-vitoya-pota-kalakaleṃta-kaliyam
pāyāla-sahassa-vāyavasa-vega-salila-uddhammamānadagarayarayam-
dhakāraṃ. . . . (fol. 45).

(Commentary.)

Tathāpare-rājabyo'nye pāikka-cora-saṃghāḥ—padāti-rūpa-caura-samū-
hāḥ, tathā senāpatayaḥ, kiṃsvarūpāḥ?—caura-vṛnda-prakarsakāś ca tat-

considered dangerous to go by the royal road in the night or early in the morning.¹ They were a great hindrance to the development of agriculture, trade, and industry.² It was for this reason that people belonging to the professional classes often had to leave their villages and flee into the forests.³ Naturally a strong king was well advised to get rid of these *sāmantas*, and turn them into an agricultural community. It is a pity that Dr. Śāmaśāstrin translated *sāmantas* as "kings" in the chapters of the *Artha-śāstra* dealing with the king's policy towards the ruling class (*sāmanta* class).⁴ It would have been better if the word *sāmanta* had been left untranslated. The economic and political condition of the country was quite different from what we see to-day. The problem before the administrator was how to bring the whole country under the administration of a central government, how to turn these haughty independent nobles into loyal subjects, and reduce their political power. Looked at in this light, the sections of Kauṭilya dealing with state policy towards *sāmantas* seem quite intelligible and need no special

pravarttakā—ity arthaḥ, atavī-deśe yāni durgāṇi-jala-sthala-durga-rūpāni tesu vasanti ye te tathā, kāla-harita-rakta-pīta-śuklāḥ pañca-varṇā iti yāvat aneka-śata-saṃkhyās cihna-paṭṭa vadhā yais te tathā paraviṣayān abhigñanti, lubdhā iti vyaktaṃ, dhanasya kārye—dhana-kṛte ity arthaḥ, tathā ratnākara-bhūto yaḥ sāgaraḥ sa tathā taṃ cātipatyābhigñanti janasya potān iti sambandhaḥ, ūrmayo vicayas tat-sahasrāṇām mālāḥ—pañktayas tābhīr ākulo yaḥ sa tathā, ākulā—jalābhāvena vyākulita-cittā ye vitoya-potāḥ—vigata-jala-yāna-pātrāḥ sāmyātrikāḥ kalakalimpta'tti kalakalāyamānāḥ—kolāhalaṃ kurvāṇas taiḥ kalito yaḥ sa tathā, . . . (fol. 50.)

(The *Praśna-vyākaraṇa* transmitted by Sudharma Svamin.)

¹ See Chapter VII, p. 164, Note 5.

² Vallabhāḥ karmikais stenair antapālāis ca pīḍitam
Śodhayet paśu-saṃghāis ca kṣiyamāṇa-vaṇik-patham.

(*Kau. Artha.*, p. 49.)

³ Kvacit te vaṇijo rāṣṭre nodvijanti karārdritāḥ
krīpanto bahunālpēna kāntāra-kṛta-viśramāḥ. 23.
Kvacit kṣīkarā rāṣṭraṃ na jahaty atipīḍitāḥ
Ye vabhanti dhuraṃ rājñā te vahanātārān api. 24.

(*Mahābhārata, Śāntiparvan*, adhāya 89.)

⁴ *Artha-śāstra* of Kauṭilya translated into English by Dr. Śāmaśāstrin, pp. 317-76, book vii.

interpretation or justification. On the other hand, taking *sāmanta* as meaning a king, it would look as if Kauṭalya had no regard for the rights of other kingdoms.

There is no doubt that Kauṭalya was strongly opposed to any claim to independence on the part of these aristocrats. Already in his time there were a good number of people belonging to the class of *sāmantas*. They were merely the landowning class, who claimed freedom from the oppression of government servants and policemen. He wanted to reduce all powerful *sāmantas* into peaceful, loyal landowners, and, if possible, to bring their property directly under the control of the king. A few quotations will suffice to give a clear idea of his policy. He writes, "Having kept a *sāmanta* engaged with another *sāmanta*, a wise king should proceed against the third *sāmanta*, and, having conquered him, take possession of his territory."¹ "There can be no greater evil to kings than alliance with a *sāmanta* of considerable power, unless one is actually attacked by one's enemy."²

The policy of a Hindu king was to divide them and then rule (*dividere et imperare*).³ The occasion of a marriage was always thought the best time to create dissension among them.⁴ If not successful at such a time, he should arrange to damage their property and possessions by night through the agency of spies,⁵ or else he should arrange to depose

¹ Sāmantenaiva sāmantaṃ vidvān āyojya vighrahe
Tato'nyasya hared bhūmiṃ jītvā pakṣa-samantataḥ.

(Kau. Artha., p. 280.)

² Yadbalaḥ sāmantaḥ tadviśiṣṭa-balam āśrayeta. . . . Mahādoṣo hi viśiṣṭa-bala-samāgamo rājñām anyatrāri-grhītāt. (Ibid., p. 267.)

³ Sarveśām āsannāḥ satrīṇaḥ saṃghānām parasparanyaṅga-dveṣa-vaira-kalaha-sthānāny upalabhya kramābhiniṭaṃ bhedam apacārayeyuḥ—
"asau tvā vijalpati" iti. (Kau. Artha., p. 378.)

⁴ Kṛtyapakṣopagraheṇa vā kumārakān viśiṣṭacchindikayā hinacchindikān utpādayeyuḥ. Viśiṣṭās caikapātraṃ vivāha-hinebhyo vārayeyuḥ. Hinān vā viśiṣṭair ekapātre vivāhe vā yojayeyuḥ. . . . (Ibid.)

⁵ Vivāda-padeṣu vā dravya-paśu-manuṣyābhighātena rātrau tikṣṇāḥ kalahān utpādayeyuḥ. Sarveṣu ca kalaha-sthāneṣu hinapakṣaṃ rājā kośa-daṇḍābhyām upagṛhya pratipakṣa-vadhe yojayet, bhinnān apavāhayed vā. (Ibid., pp. 378-9.)

them on a charge of disloyalty,¹ or bring about a quarrel between two parties and then help the weaker with funds and men. When all such methods failed, the ringleaders should be poisoned through wine sent as *naiṣecanika* by their family members, or offered by a sweetheart as a token of love²; or they should be induced to fight against each other on account of some woman.³

As far as the confiscation of their property was concerned, Kauṭalya was quite right in saying that such a policy followed by any king would set all the *sāmantas* against him : his rule could not last long. The *sāmantas* from fear of losing their property would make common cause, and combining secretly would revolt against his rule.⁴ Owing to this, the policy followed by a Hindu king was to give them as far as possible high positions and appointments in his state. The courtiers, privy councillors, military leaders, collectors-general, body-

¹ Ekadeśe samastān vā niveśya bhūmau caiśam pañca-kulim daśa-kulim vā kṛṣyāyām niveśayet. . . . Rājāśabdibhir avaruddham ava-kṣiptam vā kulyam abhijātam rājaputre sthāpayet. . . . Pratipanneṣu kkrtya-pakṣopagrahārtham artham daṇḍam ca preṣayet. (Ibid., p. 379.)

² Vikrama-kāle sauṇḍika-vyañjanāḥ putra-dāra-pretāpadeśena " naiṣecanikam " iti madana-rasa-yuktān madya-kumbhān śataśaḥ prayaccheyuh. (Ibid., p. 379.)

³ From :—

Bandhaki-poṣakāḥ plavaka-naṭa-nartaka-saubhikā vā praṇihitāḥ strībhiḥ parama-rūpa-yauvanābhis-saṅgha-mukhyān unmādayeyuh. . . .

To :—

Bhikṣukī vā priya-bhāryam mukhyam brūyāt—" asau te mukhyo yauvanodrikto bhāryāyām mām prāhiṇot; tasyāham bhayāl lekhyam ābharanam gatāsmi; nirdoṣā te bhāryā; gūḍham asmin pratikartavyam aham api tāvat pratipatsyāmi " iti. evamādiṣu kalaha-sthāneṣu svayam utpanne vā kalahe tīkṣnair utpādite vā hīna-pakṣam rājā kośa-daṇḍābhyam upagrhya viguṇeṣu vikramayed apavāhayed vā. (Kau. Artha., pp. 380-1.)

⁴ Na ca hatasya bhūmi-dravya-putra-dārān abhimaneyeta.

Kulyān apy asya sveṣu pātreṣu sthāpayet. (Ibid., p. 313.)

Karmaṇi mṛtasya putram rāje sthāpayet. Evam asya daṇḍopanatāḥ putra-pautrān anuvartante. Yas tūpanatān hatvā badhivā vā bhūmi-dravya-putra-dārān abhimaneyeta, tasyodvignam maṇḍalam abhāvā-yottiṣṭhate. . . . (Ibid., p. 313.)

guards, etc., were appointed from among them.¹ The conditions of that time were such as to make it desirable to restrict these appointments to certain families. If a king were childless, he selected his successor from among these powerful *sāmantas*. Sometimes he managed that his wife should have a child by some friendly *sāmanta*. When all methods failed, it appears that the administration was continued by the federation of nobles, related to him and already in attendance at court as courtiers.² It appears that Kauṭalya approved of this system of administration, as long as any danger was ahead, and the heir-apparent was unfit to protect the kingdom from calamity.

The relations of these *sāmantas* with the king were also based on agreements (*saṃdhi*) which varied in different cases. A *sāmanta* could either—

- (1) Provide a fixed number of troops or the best fighting men of his army, whenever so required (*ātmāmiśa-saṃdhi*), or
- (2) Supply a commander of his army and place his heir in the king's custody as a hostage (*puruṣāntara-saṃdhi*), or
- (3) March with his army against another country, whenever ordered to do so (*adr̥ṣṭa-puruṣa-saṃdhi*), or
- (4) Give to the king the ladies of his household and the leading men of his estate as hostages to assure his allegiance (*daṇḍopanata-saṃdhi*), or

¹ Pitṛ-paitāmaho vaśyaḥ saṃhato datta-vetanah | Vikhyāta-pauruṣo janyaḥ kuśalaḥ kuśalair vṛtaḥ.

(*Kāmandakīya-nīti-sāra*, sarga 4, śloka 63, p. 63.)

Pitṛ-paitāmahaṃ nityam advaidhyam hrdayānugam

Mahal laghu samutthānaṃ mitraṃ kāryārtham iṣyate. (Ibid., śloka 68, p. 64.)

Janapado'bhijātaḥ . . . vairāṇām akartety amātya-saṃpat. (*Kau. Artha.*, p. 15.)

² Vṛddhas tu vyādhito vā rājā mātṛ-bandhu-tulya-guṇavat-sāmāntānām anyatameṇa kṣetre bijam utpādayet. Na caikaputram avinītaṃ rāje sthāpayet. Bahūnām eka-saṃrodhaḥ pitā putra-hito bhavet | Anyatrāpada aiśvaryaṃ jyeṣṭha-bhāgi tu pūjyate. Kulasya vā bhaved rājyaṃ kula-saṅgho hi durjayaḥ | Arāja-vyasanābādhaḥ śaśvad āvasati kṣitim. (*Kau. Artha.*, p. 35.)

- (5) Pay a certain amount of money in a lump sum every year (*parikraya-saṁdhi*), or
- (6) Give as much money as could be carried on a man's shoulders as subsidy (*skandhopaneya-saṁdhi*), or
- (7) Give an exorbitant amount of money (*kapāla-saṁdhi*), or
- (8) Cede a portion of territory to the king (*ādiṣṭa-saṁdhi*), or
- (9) Cede his whole territory with the exception of his headquarters (*ucchinna-saṁdhi*), or
- (10) Give the produce of his lands (*apakraya*), or
- (11) Give even more than his lands produced (*paribhūṣaṇa*).¹

The *Kāmandakīya-nīti-sāra* specifies twenty forms of tribute, and adds that each among them had numerous minor heads.² All these kinds of tribute were classed by Kauṭilya under four heads, namely, (1) Treasury, (2) Army, (3) Personal Service, and (4) Estates.

Even after pursuing such a policy as has been described above, it was not an easy task for a king to keep these powerful *sāmantas* under control. As long as a king was strong, they paid their tribute. But they never did this willingly.

¹ From :—

Pravṛtta-cakreṇākrānto rājñā balavatābalaḥ
Saṁdhinopanamet tūrṇaṁ kośa-daṇḍātma-bhūmibhiḥ.

To :—

Kuryād apekṣaṇaṁ pūrvaṁ paścimau tv ābaliyaśam
Adāya phalam ity ete deśopanata-saṁdhayaḥ.

(Ibid., pp. 270-1.)

- ² Balinā vigṛhītaḥ san nṛpo'nanya-pratikriyāḥ
Āpannaḥ sandhim anvicchet kurvāṇaḥ kāla-yāpanam. 1.
Kapāla upahāraś ca santānaḥ saṁgatas tathā
Upaṇyāsaḥ pratikāraḥ saṁyogaḥ puruṣāntaraḥ. 2.
Adṛṣṭa-nara ādiṣṭa ātmamāṣa upagrahaḥ
Parikrayas tathocchinnaḥ tathā ca paradūṣaṇaḥ. 3.
Skandhopaneyaḥ saṁdhiś ca ṣoḍaśaḥ parikirtitaḥ
Iti ṣoḍaśakaṁ prāhuḥ saṁdhiṁ saṁdhi-vicakṣaṇāḥ. 4.
(Tathāntarbheda-rūpeṇa bhavaty eko'py anekadhā.)

(*Kāmandakīya-nīti-sāra*, p. 124.)

Seeing a powerless king on the throne, they collected their own friends and began to delay payment on some plea or other ; and gradually the whole kingdom turned into anarchy. Each *sāmanta* began to call himself independent. Frequently a powerful *sāmanta* who had attained the command of the whole army dethroned or murdered the king, and established his own authority. He demanded payment of tribute and other dues. Those who refused or delayed payment on any plea were regarded as enemies : a policy of secret poisoning or murder was adopted towards them.

When the king, on the other hand, was successful in his policy of weakening the power of the *sāmantas*, it can well be understood that many such once important families became humbled and reduced in circumstances ; and these, losing their former independence and influence, came to occupy an inferior position, and set up as large or small farmers, or took to trade or banking or other professions. Similarly descendants of collateral branches of original *sāmanta* families would, as time passed, have to adopt a separate means of livelihood. All such persons are understood for the purpose of this thesis to be included within the *sāmanta* agricultural community or the *sāmanta* class.

In the rise or fall of a *sāmanta* family its economic, social and political conditions played an important part. Probably at the ceremonies connected with marriage, tonsure, sacred thread, etc., the attendance of the nearest relatives was thought essential, as it is at present. Owing to family quarrels each group was often divided among many hostile parties. Sometimes these quarrels developed into a kind of civil war, and resulted in the extermination of the whole group. It is rather interesting to observe that social disputes occurred of much the same character as nowadays. The dialogue between Vāsudeva and Nārada in the *Mahābhārata*, often quoted to establish a theory regarding the democratic or republican form of ancient Indian kingdoms, deals only, in my opinion, with disputes and quarrels originating from

the divisions of the important families of *sāmantas* into separate parties. These groups were often called *gaṇa*, *cakra*, *maṇḍala*, etc. The headman appointed or selected by them was termed *cakradharin* or *maṇḍala*, etc. As the *sāmantas*, after losing their political power, took to trade, industry or agriculture, *maṇḍala*, *cakradharin*, *cakravartin*, *caturdharīṇa*, etc., gradually began to mean a headman of traders or industrial people, or of agriculturists, etc.

Side by side with these agriculturist *sāmanta* families, there were descendants of royal servants who were appointed as *grāmika*, *grāma-bhṛtaka*, etc., called *grāma-kūtas*, *mahat-taras*, etc. As the central government was generally not strong enough to protect the people from the greed of the powerful *sāmantas*, naturally the people, to save themselves from trouble and calamity, preferred to live under some form of organization. It appears that the labouring classes organized themselves under the *kāya*; the industrial and professional classes under the *śreṇi*; and the trading classes under the *nigama*.

CHAPTER VII

THE LABOURING CLASSES

- I. THE WAGES OF LABOUR
- II. THE STANDARD OF LIVING OF LABOUR



CHAPTER VII

THE LABOURING CLASSES

I. THE WAGES OF LABOUR

AS already stated, the lower or labouring classes included a vast diversity of peoples of different races and tribes who had either been subjugated in war or become impoverished, or constrained for other reasons to undertake military or police service, or perform agricultural or industrial labour or do menial work. The great Linguistic Survey carried out by Sir George Grierson assists us to differentiate between many of the groups following such avocations ; but the origin of many is still obscure. All were looked down upon or regarded as degraded or impure by the upper classes.

According to the *Upāsaka-daśā-sūtra* the following fifteen professions should be considered impure, and unworthy of a Jain :—

(1) Trading in coal ; (2) cutting wood ; (3) earning a livelihood by driving a bullock cart, or (4) pack-horses or mules ; (5) tilling the land ; (6) selling things like butter, oil, *ghī*, etc. ; (7) trading in elephant tusks ; (8) manufacturing shellac ; (9) selling poisons ; (10) trading in hair ; (11) manufacturing sugar, etc. ; (12) branding cattle ; (13) clearing forest and jungle ; (14) draining marshes and lowlands ; and (15) keeping wild animals for sale.¹ Kautālya informs us that the professional classes denoted by the term *kāru*

¹ *Ingāla-kamme, vaṇa-kamme, sāḍī-kamme, bhāḍī-kamme phoḍī-kamme, danta-vāṇijje, lakkhā-vāṇijje, rasa-vāṇijje, visa-vāṇijje, kesa-vāṇijje, janta-piḷaṇa-kamme, nillāñchaṇa-kamme, davāggi-dāvaṇayā, saradaha-talāva-sosaṇayā, asaī jana-posaṇayā.* 51.

(*Upāsaka-daśā-sūtra* by Sudharma Svāmin.)

Vṛttayo'ngāra-vipināno bhāṭī-sphoṭa-karmabhih. Vāṇijyā kṛ danta-lāksā rasa-keśa-viśāśritā. 52. *Yantra-piḍanakaṃ nirlāñchanakaṃ dānaṃ davasya ca. Sarāḥ śoṣo'satī pośaś ceti pañca-daśa tyajet.* 53.

(*Dharma-saṅgraha* by Mānavijaya, p. 109.)

('artificer') should be considered impure¹; and silver or gold should not be purchased from them.² It appears also that the women of these classes used to work in cotton, wool, timber and other factories in order to supplement the income of the family.³

According to Manu the men and women employed upon government work should be paid daily according to their work and position; unskilled and skilled labourers should get one and six *pana* respectively, clothes after six months and a *drona* of rice once a month.⁴ From this statement it appears that the average pay of an unskilled day labourer was one *pana* a day. If we examine the list of fines imposed on labourers for the offence of neglecting their work after taking their wages, and those imposed on employers for the offence of not paying their wages after taking work from them we arrive at the same conclusion. "Disputes regarding wages," writes Kaṭṭāya, "shall be decided on the strength of evidence furnished by witnesses; in the absence of witnesses the master who has provided his servants with work shall be examined. Failure to pay wages shall be punished with a fine of twelve *panas*, or ten times the amount of wages."⁵ Six and twelve *panas* were, therefore, five and ten times the amount paid as wages to the labourers. If we divide the amount of fines by five and ten, we get the daily wages of an unskilled

¹ *Asucayo hi kāravaḥ. (Kau. Artha., p. 180.)*

² *Suvarṇakārāṇām asuci-hastād rūpyam suvarṇam anākhyāya sarūpaṃ kṛṇatām dvādaśa-pano daṇḍaḥ. (Ibid., p. 202.)*

³ *Kaṭṭāya's Artha-sāstra, Prakaraṇa, 40, pp. 113-15.*

⁴ *Rāja-karmasu yuktānām strīṇām preṣya-janasya ca Pratyahaṃ kalpayed vṛttim sthānakarmānurūpataḥ. 125. Paṇo deyo'vakraṣṭasya ṣaḍ utkraṣṭasya vetanam Śāṇmāsikas tathācchādo dhānya-droṇas tu māsikaḥ. 126.*

(Manu-smṛti, vii.)

⁵ *Kāru-śilpi-kuśilava-cikitsaka . . . yathā vā kuśalāḥ kalpayeyuḥ tathā vetanam labheta. Sākṣi-pratyayam eva syāt. Sākṣiṇām abhāve yataḥ karma tato'nyuñjita. Vetanādāne pañca-bandho daṇḍaḥ. Ṣaṭpaṇo vā. Apavyayamāne daśa-bandho daṇḍaḥ. Dvādaśa paṇo vā. (Kau. Artha., p. 184.)*

Grhītvā vetanam karma akurvato bhṛtakasya dvādaśa paṇo daṇḍaḥ. (Ibid.)

labourer as 1·2 *panas* a day, or about a silver *māṣaka*. The fine of twelve *panas*, which represented ten times the actual wage, is repeated again in the sixty-sixth section of the *Arthaśāstra* of Kauṭilya. For the same offence Manu assesses the fine as eight silver *kṛṣṇalas*.¹ As the rate of exchange between silver and copper *panas* was in the time of Manu as 1 : 16, and some time after him as 1 : 20, the eight *kṛṣṇalas* may be regarded as ten times the wage. Thus, as far as the law-books are concerned, it appears that one *pana* a day was an established rate of wage. Possibly it had been fixed by authority as the minimum wage of a day labourer. This conclusion is corroborated by the *Jātaka* stories, which were compiled some time about the Gupta period, and give a good idea of the daily life of the people at the time. No doubt these stories cannot be taken as authorities for any scientific work ; but at the same time they cannot be neglected entirely, as they contain much useful material. Take, for instance, the *Gaṅgamāla-jātaka*. Here we find the wages given to a water-carrier as half a silver *māṣaka*, or say half a copper *pana* a day.² The same wage was paid to a female labourer. The *Visahya-jātaka*, by way of describing the virtue of charity, says that the earning of a grass-cutter was one silver *māṣaka* a day, and adds that it was enough to provide two persons with food.³ The wages of skilled labourers were not definitely fixed. The lowest amount given to them was sixty *panas* a month, or about two *panas* a day. All servants

¹ Bhṛtyo nārto na kuryād yo darpāt karma yathoditam
Sa daṇḍyaḥ kṛṣṇalāṇy aṣṭau na deyaṃ tasya vetanam.

(*Manu-smṛti*, viii, 215.)

² Tadā Vārāṇasiyā uttaradvārāvāsī eko bhāṭiko udakabhāṭim katvā laddhaṃ aḍḍhamāsakaṃ pākāriṭṭhikāya antare ṭhapetvā. (*The Jātakas*, ed. by Fausboll, vol. iii (1883), p. 446.)

³ Sā taṃ āha. "Sāmi nagare chaṇo vattati sa ca te kiñci atthi mayampi . . . āma atthīti . . . 'kittakaṃ sāmīti' . . . aḍḍhamāsakoti . . . āma atthīti. kittakan ti. Aḍḍha māsako-vā " ti. (*Ibid.*, p. 446.)

Eko amhākaṃ bhavissati, ekena dānaṃ dassāmīti dve tiṇakalāpe bandhitvā kāje laggetvā ādāya gantvā nagara-dvāre vikiṇitvā māsake gahetvā ekaṃ koṭṭhāsāṃ yācakānāṃ ādāsi. (*Ibid.*, p. 130.)

connected with the king's cattle were paid at this rate.¹ From 250 copper *panas* to 1,000 copper *panas* were the wages fixed by Kauṭilya for the staff of clerks, accountants, writers, foretellers, readers of omens, astrologers, readers of Purāṇas, story-tellers, bards, musicians, etc.² Coming down to the twelfth century A.D., we find that the amount paid monthly to the priest of the Somanātha temple in Gujarāt was from nine *drammas* to fifteen *drammas*.³ Multiplying by sixteen, the monthly wages of the Somanātha temple's staff comes to from 144 copper *panas* to 240 copper *panas* a month. As necessary details are not available it will be better not to draw any conclusion from these latter rates of wages.

From the available evidence it thus appears that the wages of an unskilled labourer varied approximately between half and one *pana* a day. The wage of government menial servants, as given by Kauṭilya, was two *panas* a day. How far do these figures represent the actual facts? We gather information that will assist us to answer this question from the inscriptions dated circa A.D. 625 published by Professor Sylvain Lévi in his book entitled *Le Népal*. According to these inscriptions, the wages of door-keepers, street watchmen and sweepers were approximately two-thirds of a copper *pana* a day. The menial staff attached to the palace, royal elephants and horse, and personal servants were paid from one and a half to two *panas* a day.⁴ Soldiers and cowherds

¹ Catuspada-dvipada-paricāraka-pārikarmikopasthāyika-pālaka-viṣṭi-bandhakāṣ ṣaṣṭi-vetanāḥ. (*Kau. Artha.*, p. 248.)

² Kārtāntika-naimittika-mauhūrtika-paurāṇika-sūta-māgadhāḥ purohita-puruṣās sarvādhyakṣās ca sāhasrāḥ. Śilpavantaḥ pādātāḥ saṃkhyāyaka-lekhakādi-vargaḥ pañca-śatāḥ. Kuśila-vāstvardha-trṭīya-śatāḥ. Dviguṇa-vetanās caiśaṃ tūryakarāḥ. (*Ibid.*, pp. 247-8.)

³ Pūjām apratimāṃ karttūṃ pratimāsam upeyuṣaḥ. Deyāḥ pañcadaśa drammaḥ paśupālasya dharmmataḥ. 62.

Cāturjātaka-pādānāṃ yaḥ sammilita-pottake. tataḥ pañcadaśa drammaṃ pratimāsam vyadhatta yaḥ. 63. (*BI.*, vol. i, No. xxxii, pp. 285-6.)

⁴ According to Śaṅkha and Likhita "Vāhana-yodhānāṃ satatāṃ anvikṣaṇaṃ, pratimāsam dvisauvarṇikī vṛttiḥ, śānmāsyam smaraṇaṃ, cāturmāsyam vā . . ." i.e. the wages of soldiers or servants connected with the king's cattle shall be 2 *suvarṇas* for two months. It has already been explained

received a similar wage. The complete table of wages is as follows :—

TABLE NO. XXII

NEPĀL TABLE

TABULATED STATEMENT OF THE WAGES OF DAY LABOURERS AND GOVERNMENT SERVANTS (circa A.D. 625)

| | Wages per mensem in | | Wages in copper panas | | Authority : Le Népal, vol. iii. | |
|--|------------------------|---------------|--------------------------|----------------|---------------------------------------|----------|
| <i>Manual workers and servants.</i> | <i>Purāṇas—</i> | <i>Panas.</i> | <i>Annual</i> | <i>Monthly</i> | <i>Daily.</i> | |
| Elephant-man (<i>abhiṣeka-hastin</i>) | 3 Pu.—1 Pa. | | 588 | 49 | 1½ | pp. 85-9 |
| Horse-groom (<i>abhiṣekāśva</i>) | " " | " | " | " | " | " |
| Messenger (<i>dhāvaka-gechi</i>) | " " | " | " | " | " | " |
| Officiating priest | " " | " | " | " | " | " |
| Treasurer ? (<i>bhāṇḍa</i>) | 2 " 2 " | " | 408 | 34 | 1 | " |
| Personal attendant (<i>camara-dhara</i>) | " " | " | " | " | " | " |
| Personal attendant (<i>pīṭhādhyākṣa</i>) | " " | " | " | " | " | " |
| Flag-carrier (<i>dhvaja-manusya</i>) | " " | " | " | " | " | " |
| Water-carrier (<i>pāṇiya-karmāntika</i>) | " " | " | " | " | " | " |
| Flag-carrier (<i>puṣpapātākāvāha</i>) | " " | " | " | " | " | " |
| Palace servants (<i>rāja-kula-vastunā niyukta-mānusya</i>) | " " | " | " | " | " | " |
| Door-keeper | 1 " 4 " | " | 240 | 20 | ⅔ | " |
| Street-watchman | " " | " | " | " | " | " |
| Sweeper | " " | " | " | " | " | " |
| Soldier (<i>bhaṭa</i>) | 2 " 2 " | " | 408 | 34 | 1 | " |
| Cowherd (<i>gauśthika</i>) | " " | " | " | " | " | " |
| General of the army (<i>nāyaka</i>) | 20 " 0 " | " | 3800 | 320 | 10 | " |
| Allowance for the grass of a horse | 0 " 2 " | " | 24 | 2 | 1⅓ | " |

Coming down to the eleventh and twelfth century A.D. we obtain some information about the scale of wages from the Southern Indian inscriptions. These are full of useful material, though at first sight they seem quite unintelligible. Before they can be properly utilized it is necessary to overcome three difficulties, namely, one connected with weights, the second connected with the coins, and the third regarding the necessary details of each particular kind of work. A solution of the difficulties in respect of weights and coins has been suggested in the chapter dealing specially with those subjects. The

in the 3rd section of Chapter III that the rate of exchange between the gold *māṣaka* and the copper *pana* was 1 : 36. Taking the *suvarṇa* referred to above to be equivalent to the gold *māṣaka* the wage of a soldier comes to 36 copper *panas* per month, or 1½ copper *panas* per day, i.e. much the same as mentioned in the Nepāl inscriptions. (For the Samskṛta passage quoted above, see the *Vīra-mitrodaya* (rāja-nīti-prakaraṇa), vol. vi, p. 252.)

wages of the workers and the labourers attached to the temple in Tanjore are given in the Southern Indian inscriptions in paddy. As the price of two *kalams* of paddy was one *kāśu*, the wages of the temple workers and the labourers in paddy and coin may be arranged in tabular form in the following manner:—

TABLE NO. XXIII

SOUTHERN INDIAN TABLE

TABULATED STATEMENT OF THE WAGES OF DAY LABOURERS AND SERVANTS
(IN THE COLA COUNTRY AT THE BEGINNING OF THE ELEVENTH CENTURY A.D.)

| | Wages in kind per year. | | Wages in cash. | | |
|--|--------------------------------|---------------------|------------------------|-----------------------|--|
| | Share. | Kalams of paddy. | Annual in kāśus. | Daily in akkas. | Authority. |
| <i>Manual workers and servants.</i> | | | | | |
| Drummers | 1 | 100 | 50 | 1 $\frac{2}{3}$ | SII., vol. |
| Headman of peons | 1 | 100 | 50 | 1 $\frac{2}{3}$ | ii, In- |
| Ordinary peon | $\frac{8}{20}$ | 40 | 20 | 1 $\frac{2}{3}$ | troduc- |
| Lamplighter | $\frac{1}{2}$ | 50 | 25 | 1 $\frac{2}{3}$ | tion, p. |
| Washerman | 1 | 100 | 50 | 1 $\frac{2}{3}$ | 18, table |
| Barber | $\frac{1}{2}$ | 50 | 25 | 1 $\frac{2}{3}$ | B. |
| Tailor | 1 | 100 | 50 | 1 $\frac{2}{3}$ | " |
| Jewel-threader | 1 $\frac{1}{2}$ | 150 | 75 | 2 $\frac{1}{2}$ | " |
| Brazier | 1 | 100 | 50 | 1 $\frac{2}{3}$ | " |
| Master-carpenter | 1 $\frac{1}{2}$ | 150 | 75 | 2 $\frac{1}{2}$ | " |
| Ordinary carpenter | $\frac{3}{4}$ | 75 | 37 $\frac{1}{2}$ | 1 $\frac{1}{4}$ | " |
| Goldsmith superintendent | 1 | 100 | 50 | 1 $\frac{2}{3}$ | " |
| Tiruppadiyam reciter | (3 karūṇi of paddy per day) | | 45 | 1 $\frac{1}{2}$ | " |
| Water-drawer and water-carrier | (2 karūṇi of paddy per day) | | 30 | 1 | SII., vol. iii, p. 8. |
| Annual allowance of an actor, together with his troop for acting a drama once a year | — | 120 | 60 | 2 | SII., vol. ii-iii, p. 307. |
| Paddy-measurer | 1 | 100 | 50 | 1 $\frac{2}{3}$ | Ibid., p. 312. |
| Temple-servants | — | 64-94 | 32-47 | 1-1 $\frac{1}{2}$ | " p. 320. |
| Accountant | — | 200 | 100 | 3 $\frac{1}{2}$ | " |
| Under-accountant | — | 75 | 37 $\frac{1}{2}$ | 1 $\frac{1}{4}$ | " |
| Temple-watchman | — | 100 | 50 | 1 $\frac{2}{3}$ | " p. 333. |
| Dancing girl | 1 | 100 | 50 | 1 $\frac{2}{3}$ | " vol. ii, Intro- duction, p. 18. |
| Dancing-master | 2 | 200 | 100 | 3 $\frac{1}{2}$ | " |
| Lute-player | 1 $\frac{3}{4}$ | 175 | 87 $\frac{1}{2}$ | 3 | " |
| Samskr̥ta musician | 1 $\frac{1}{2}$ | 150 | 75 | 2 $\frac{1}{2}$ | " |
| Tamila musician | " | " | " | 2 $\frac{1}{2}$ | " |
| Garland-maker | — | — | 65 | 2 $\frac{1}{8}$ | " |
| Potter's allowance | (2 tūṇi of paddy per month) | | | | Ibid., vol. iii, p. 8. |

It has already been mentioned that according to the *Manu-smṛiti* and other law-books the wages of an unskilled day labourer were one copper *paṇa* a day. It varied from time to time, possibly between half and one *paṇa*. The minimum amount mentioned in the *Jātakas* and in the Nepāl table is half and two-thirds of a *paṇa* respectively; in the Southern Indian table it varies from two-thirds to one *akka*. According to Mr. Moreland the average wages of unskilled and skilled labourers in the early Mughal period (*circa* A.D. 1550) were as shown in the following table:—

TABLE NO. XXIV
MUGHAL PERIOD (*circa* A.D. 1550)
TABULATED STATEMENT OF THE WAGES OF DAY LABOURERS AND
SERVANTS

| <i>Monthly workers and servants.</i> | <i>Monthly wages in Rs.</i> | <i>dāms.</i> | <i>Daily wages in dāms.</i> | <i>Authority : Moreland : India at the death of Akbar.</i> |
|--------------------------------------|-----------------------------|--------------|-----------------------------|--|
| Ordinary labourer | — | — | 2 | pp. 191-2 |
| Superior labourer | — | — | 3-4 | „ „ |
| Carpenter . . | — | — | 3-7 | „ „ |
| Slave . . | — | 30 | 1 | „ „ |
| Sweeper . . | — | 65 | 2 | Approx. „ „ |
| Camel-driver . . | — | 60 | 2 | „ „ |
| Servant . . | 2 | 80 | 2½ | „ „ |
| Servant . . | 3 | 120 | 4 | „ „ |
| Messenger . . | 3-4 | 120-164 | 4-5½ | „ „ |
| Household servant | 2 | 80 | 2½ | „ „ |
| Peon . . | 1½ | 60 | 2 | „ „ |
| Ordinary artisans | 1 | 44 | 1½ | „ „ |

It appears from the above table that the wages paid to a day labourer in the time of Akbar were about two *dāms* per day. As far as prices of food-stuffs were concerned it has already been explained that they rose from the fifth century A.D. up to the eleventh century A.D. about seven times and from the eleventh century A.D. up to the sixteenth century A.D. about two-thirds times. Taking the rise of prices on the whole as about seven times, we can get some idea of the economic condition of the working classes in ancient India. From evidence quoted above it is clear that in the fifth century A.D. a day labourer was paid from half to one copper *paṇa* per day, or say on the average two-thirds of a copper

pana. According to Mr. Moreland and others in the time of Akbar a sweeper was paid two *dāms* per day. As a *dām* was equal to two and a quarter copper *panas* as far as the metallic content was concerned, two *dāms* would be equal to four and a half copper *panas*. Dividing four and a half copper *panas* by two-thirds, we find the rise in wages to have been six and three-quarters times or, say, in round numbers seven times. It is clear from this that the wages rose according to the general rise of prices. According to De Laet a messenger in the time of Akbar was paid from four to five and a half *dāms* or, say, on the average five *dāms*. According to the Tanjore inscriptions a head peon was paid one and two-thirds *akkas* per day. If five *dāms* be taken as equivalent to $1\frac{2}{3}$ *akkas*, we do not find any rise in the wages of the peon. The wages of a carpenter in the sixteenth century A.D. were from three to seven *dāms* or on the average about five *dāms*. The wages of a carpenter in the eleventh century A.D. were from one and a half to two and a half *akkas*, or on the average two *akkas* (= six *dāms*) per day.

Thus it is clear from the tables of wages and prices that wages rose according to the rise in prices. Whatever opinion may be formed about the economic condition of the labouring classes in the sixteenth century A.D., the same will apply to their condition during the Hindu period. Mr. Moreland has already shown that the economic condition of the poor classes in the time of Akbar was not satisfactory. Their standard of living was very low. There was no furniture or other articles of comfort in their poor cottages. They were no better off in the Hindu period. The social organization prevailing in the Hindu period suited the upper classes very well ; but its effect on the poor was very bad.

Take, for instance, the wages paid to a day labourer in the early Hindu period. All authorities agree that it was about two-thirds *pana* a day. After full consideration of the prices of food-stuffs and of the allowances made to a day labourer, it appears to me that this was little more than

sufficient to furnish food, clothes, and other necessities to an average family containing, say, four or five members. Perhaps the other adult members of the family had also to labour for their living.

There is no doubt that in the time of the *Jātakas* the purchasing power of a copper *paṇa* was very high. One-fourth of a copper *paṇa* was quite sufficient at that time to furnish a good meal to a day labourer. The daily wage paid to an unskilled labourer varied between half and one *paṇa*. According to an inscription connected with the *Kākanāda-voṭa-śrī-mahāvihāra* Amarakārdava, the son of Udāna, gave twenty-five *dīnāras* in order to provide daily meals for ten monks and oil for two perpetual lamps.¹ As in those days the interest on one *dīnāra* sufficed to supply enough oil for a perpetual lamp, two *dīnāras* may be deducted from the above amount as representing the cost of the two oil lamps, and the remaining twenty-three *dīnāras* may be regarded as the sum required for feeding ten monks. Taking the rate of interest as fifteen per cent, and the *dīnāra* of the inscription as equal to sixteen silver *paṇas*, the daily interest on twenty-three *dīnāras* would come to approximately 2·5 silver *māṣakas*, or copper *paṇas*. Dividing 2·5 by ten, the allowance would come to a quarter of a silver *māṣaka* per monk.² The amount granted for the monthly stipend of a monk registered in the Pāṇḍu-lena caves of Nāsik is one *paḍika*.³ In inscription No. 12 of the same place the amount recorded is a little less.⁴ If we take the *paḍika* as equivalent to a silver *paṇa*, the daily allowance per monk comes approximately to half a silver *māṣaka* or half a copper *paṇa*, or just double the former amount (quarter of a silver *māṣaka*). If the *paḍika* of the inscriptions

¹ Chapter IV, p. 102, Note 3.

² By accepting the *dīnāra* as equal to 32 silver *paṇas* the allowance per monk comes to $\frac{1}{2}$ silver *māṣaka* or $\frac{1}{2}$ copper *paṇa* per day.

³ Chapter III, p. 94, Note 1.

⁴ *Civarika solasaka paḍiko ca māse utukāle* (No. 15); *Civarika vārasaka gimhāsu paḍiko māse* (No. 18); *Civarika solasaka paḍiko māse ca utukāle* (No. 21), (*Arch. Surv.*, vol. v.) (Quoted in the *ET.*, vol. viii. No. 8. p. 83.) *Bomb. Gaz.*, vol. xvi, p. 574.

be held to be the same as the *pādika*, or four copper *panas*, the daily allowance per head comes approximately to one-eighth silver *māṣaka* or one-eighth copper *pana*, exactly half of the said amount. According to Kauṭalya the allowance (*bhakta*) given to watchmen, slaves and labourers shall be in proportion to the amount of work done by them. "One *prastha* of rice, pure and unsplit, one-fourth part of *sūpa*, and clarified butter or oil equal to one-fourth part of *sūpa* will suffice to form one meal of an Ārya. One-sixth *prastha* of *sūpa* for a man and half the above quantity of oil will form one meal for a man of low caste (*avara*). The same rations less by one-fourth the above rations for children."¹ These allowances may be tabulated as follows :—

TABLE NO. XXV

| For an Ārya. | | Prastha. | For an Āvara. | | Prastha. |
|---------------|---|--------------------------|---------------|---|--------------------------|
| Rice | . | 1 | Rice | . | 1 |
| Sūpa | . | $\frac{1}{4}$ | Sūpa | . | $\frac{1}{6}$ |
| Salt | . | $\frac{1}{6\frac{1}{4}}$ | Salt | . | $\frac{1}{6\frac{1}{4}}$ |
| Butter or oil | . | $\frac{1}{16}$ | Butter or oil | . | $\frac{1}{32}$ |

It has already been stated that the wages of unskilled labourers do not show any remarkable variation. They moved between half and one *pana* a day. We shall probably not be far wrong if we accept the prices as found from the Tanjore inscriptions as being seven times higher than those which prevailed in the early Hindu period. The price of the best husked rice according to the Table No. XIV was five copper *panas* per maund. As the *prastha* weight used for distributing allowances to servants was equal to one and seven-eighths avoirdupois pounds, the price of one *prastha* of rice comes to two *māṣakas* approximately. As the price of *sūpa* and rice was not very different, '5 *māṣaka* may be taken as the price

¹ Śaṇḍa-vāta-gopāla-dāsa-karmakarebhyo yathāpuruṣa-parivāpaṃ bhak-taṃ kuryāt. (*Kau. Artha.*, p. 118.)

Akhaṇḍa-pariśuddhānāṃ vā taṇḍulānāṃ praśtaṃ, caturbhāgas sūpaḥ, sūpa-ṣoḍaśo lavaṇasyāṃśaḥ, caturbhāgas sarpiṣaḥ tailasya vā ekam ārya-bhaktam. Puṃsaḥ ṣaḍbhāgas sūpaḥ, ardhasnehaṃ avaraṇāṃ. Pādonāṃ strīṇāṃ. Ardhaṃ bālānāṃ. (*Ibid.*, p. 96; see also *Kau. Artha.*, English translation, p. 112.)

of *sūpa*. Butter was twelve times dearer than rice; so 1·3 copper *māṣakas* would not be an unreasonable price for one-sixteenth *prastha* of butter. Thus the total cost would come to 3·8 *māṣakas* ($2 + 1·3 + ·5$). We may add half a *māṣaka* to cover the cost of miscellaneous articles such as wood, spices, vegetables, etc. We cannot be very far wrong if we calculate the allowances mentioned by Kauṭalya for an *Ārya* and an *Āvara* as equivalent in coin to four and a half and four *māṣakas* respectively. This conclusion is corroborated by a very important sentence in the *Artha-śāstra* of Kauṭalya, namely, *ṣaṣṭhi-vetanasyāḍhakaṃ kṛtvā hiraṇyānurūpaṃ bhaktaṃ kuryāt*,¹ which means that those servants who are paid sixty copper *panas* a month should be paid in kind in time of financial difficulty at the fixed rate of one *āḍhaka* of food to a copper *pana*. As one *āḍhaka* was equal to four *prasthas*, the price of one *prastha*, according to the above sentence of the *Artha-śāstra* of Kauṭalya, comes to one-fourth of a copper *pana* or, say, four copper *māṣakas*.

It has already been concluded that the *kalaṅgu* of the Southern Indian inscriptions is the same as the *niṣka* of Bhāskara, and the purchasing power of seven of them was equal to that of one *ḍināra* of the Gupta inscriptions. It is rather interesting to notice that inscription No. 1 of Rājakesari Varman, dated A.D. 1000, records the grant of 200 *kalaṅjus* of gold, and says that from the interest of the amount twelve Brāhmaṇas should be fed before the god for an unlimited time. They were to be provided with one *ālākku* of clarified butter, five dishes of curry, five *ulakku* of curds, two areca-nuts and betel-leaves. The amount was understood to be sufficient to provide something also for the cooks and those who fetched firewood.² As the rate of interest

¹ *Alpa-koṣaḥ kupya-paśu-kṣetrāṇi dadyāt; alpaṃ ca hiraṇyam. . . . Etena bhṛtānāṃ ca vidyā-karmabhyāṃ bhakta-vetena-viśeṣaṃ ca kuryāt. Ṣaṣṭhi-vetanasyāḍhakaṃ kṛtvā hiraṇyānurūpaṃ bhaktaṃ kuryāt.* (*Kau. Artha.*, p. 249.) This sentence has been incorrectly interpreted in the English translation.

² *SIL.*, vol. iii, No. 1, p. 3.

in the Tanjore district was twelve and a half per cent, the annual interest on 200 *kalañjus* would come to twenty-five *kalañjus*. Dividing this by twelve, we get $\frac{25}{12}$ *kalañjus* as the amount per head. If we multiply by 256 and divide the resultant by 360, we get one and a half copper *panas* as the daily food allowance. Multiplying again by sixteen, we get twenty-four copper *māṣakas* per day. Similarly inscription No. 55 of Rājamahendra registers twenty *kalañjus* for the provision of food and other things for one Brāhmaṇa.¹ In this case the amount per day comes to nearly twenty-eight copper *māṣakas*. Inscription No. 45 of Mahāvali Vānarāya records the same amount of twenty *kalañjus* for one daily offering to a god, which means in other words one good daily meal to a Brāhmaṇa.² Inscription No. 8 of Kampavarman records a grant of 400 *kāḍi* of paddy to provide daily food for two Brāhmaṇas; and the annual interest on those 400 *kāḍis* is given in the inscription as 100 *kāḍis*.³ As six *kāḍis* were equal to one *kalam*, and the value of two *kalams* was one *kāṣu* or twelve *akkas*, the 100 *kāḍi* of paddy would be equal in money value to 100 *akkas*. Dividing 100 *akkas* by 360, and multiplying by seven, the daily amount allotted for two Brāhmaṇas comes to 1·9 copper *panas* per day. Inscription No. 8 of Ravivarman of Kerala records that the king gave 100 *panas* (silver ?) per annum as wages to each of his soldiers.⁴ On dividing this by 360 and multiplying by sixteen, the wage per day comes to four and four-ninths copper *panas*. From all these records it is clear that four to five copper *māṣakas* sufficed to provide for one day in the early Hindu period, and one and a half copper *panas* in the eleventh century A.D. A day labourer earning two-thirds of a copper *pana*, or, say, twelve *māṣakas* in

¹ Ibid., No. 55, p. 113.

² Ibid., No. 45, p. 97.

³ Ibid., No. 8, p. 13.

⁴ *EL.*, vol. iv, p. 150.

* Bhaṭṭabhyah purato'tra raṅga nrpateḥ paṃcāśate sāksināḥ pratyekam pratihāyanam paṇa-śatān dātum pratiṣṭhām vyadhāt. (Line 7.)

the fifth century A.D., or two-thirds of an *akka* in the eleventh century A.D. could feed himself without any difficulty. If the family (in the fifth century A.D.) consisted of four to five members, and each ate two meals a day, it would have cost them about two *paṇas* a day. As the wage of a day labourer was at most about one *paṇa* a day, it seems likely that the other adult members of his family also worked in order to earn something. At all events it must be clear that the standard of comfort among the labouring classes was very low.

II. THE STANDARD OF LIVING OF LABOUR

According to the *Mahābhārata* the people belonging to the *śūdra* class should not be allowed to make money and become rich. They should only wear worn-out clothes thrown away by the upper classes. They should not leave the service of their master, even when they were not paid their wages. In time of financial trouble they should support their employer, because everything possessed by them in reality belonged to their master.¹ It appears from what Kautalya writes that serfs, slaves and landless labourers working for the king were provided with food and clothes in lieu of wages, and were given the petty sum of one and a quarter copper *paṇas* a month for pocket expenses.² House servants had to follow their master, carrying their umbrellas, shoes and other things,³ just as at the present day. These poor landless labouring classes, according to Manu, were born only to

¹ Śūdra etān paricaret trīn varṇān anusūyakah | Saṃcayāṃś ca na kurvīta jātu śūdraḥ kathamcana. (*Mahābhārata*, Śāntiparvan, adhyāya 59, śloka 32.)

Adhāryāṇi viśrṇāṇi vasanāni dvijātibhiḥ | Śūdrāyaiva pradeyāni tasya dharma-dhanaṃ hi tat. (Ibid., śloka 36.)

Śūdreṇa tu na hātavyo bhartā kasyāṃcid āpadi. (Ibid., śloka 38.)

Atirekeṇa bhartavyo bhartā dravya-parikṣaye | Na hi svam asti śūdrasya bhartṛ-hārya-dhano hi saḥ. (Ibid., śloka 39.)

² Śaṇḍa-vāṭa-gopāla-dāsa-karmakarebhyo yathāpuruṣa-parivāpaṇaḥ bhaktam kuryāt. Sapāda-panikam māsam dadyāt. (*Kau. Artha.*, p. 118.)

³ Auśīram upānad vyajanāni ca | Yātamāyāni deyāni śūdrāya paricārīṇe. (*Mahābhārata*, Śāntiparvan, adhyāya 59, śloka 35.)

work for the upper classes, and could not be made free even with the sanction of their own master.¹ According to the *Nārada-smṛti* there were three kinds of labourers, namely those serving in the army, those performing agricultural work, and those carrying loads from one place to another place. The first class were considered the highest, and the last the lowest.² Skilled soldiers were placed by Kautilya in the grade of writers and accountants³; and their position in society was equal to that of village headmen or village servants (*grāma-bhṛtakas*). Soldiers coming from Kuru-kṣetra, Matsya, Pāñcāla, Surāṣṭra, etc., were considered to be superior,⁴ and were perhaps more highly paid. In time of war the crops were destroyed, cattle driven away, houses burned, and the villagers captured by an enemy were sold as slaves. The number of slaves was increased from time to time by the addition of persons who sold themselves to meet their obligations to creditors or the fines imposed by government officials. The law-book of Nārada enumerated fifteen different varieties of slaves.⁵

The standard of living of these poor labouring classes can

¹ Vāṇijyaṃ kārāyēd vaiśyaṃ . . . dāsyāṃ sūdraṃ dvijaṇmanām. 410. Sūdraṃ tu kārāyēd dāsyāṃ kṛitāṃ akṛitāṃ eva vā | Dāsyāyaiva hi sr̥ṣṭo'sau brāhmaṇasya svayambhuvā. 413.

Na svāminā nīr̥ṣṭo'pi sūdro dāsyād vimucyate | Nisargajāṃ hi tat tasya kas tasmāt tad apohati. 414. (*Manu-smṛti*, viii.)

² Bhṛtakās trividho jñeyo uttamo madhyamo'dhamah | Śakti-bhaktyanurūpā syād eṣāṃ karmāśrayā bhṛtiḥ. 22.

Uttamas tv āyudhiyo'tra madhyamas tu kṣībalah | Adhamo bhāravāhaḥ syād ity eṣa trividhaḥ mataḥ. 23. (*Nārada-smṛti*, p. 145.)

³ Śilpavantaḥ pādātaḥ saṅkhyāyaka-lekhakādi-vargah pañca-satāḥ. (*Kau. Artha.*, p. 248.)

⁴ Kurukṣetrāṃś ca matsyāṃś ca pañcālāṃ śūrasenakāṃ | Dīrghāṇ laghūṃś caiva narāṇ agrāṇikeṣu yojayet. (*Manu-smṛti*, vi, 193.)

⁵ Jaghanya-karma-bhājas tu śeṣā dāsās tripañcakāḥ. 25.

Grhe jātas tathā kṛito labdho dāyād upāgataḥ |

Anākālabhṛto loka āhitaḥ svāminā ca yah. 26.

Mokṣito mahataś carṇāt prāpto yuddhāt pape jitaḥ |

Tavāham ity upagataḥ pravrajyāvasitaḥ kṛtaḥ. 27.

Bhaktadāsāś ca vijñeyas tathaiva vaḍavāhṛtaḥ |

Vikretā cātmanaḥ śāstre dāsāḥ pañcadaśa smṛtāḥ. 28.

(*Nārada-smṛti*, ed. Jolly, pp. 146-7.)

be judged from the *Harṣa-carita* of Bāṇa, wherein he writes that at the time of Harṣa's march against the enemy "a cloud of dust was raised by bands of running foragers with loins a mass of fodder bundles and grey with chaff, sickles swinging from one part of their ancient saddles, loose dirty blankets made of bits of old wool and dangling in tatters, torn jerkins presented by their master."¹

Forced labour was one of those cruel and immoral customs that injuriously affected the position of the poor. Kauṭalya gives it his sanction, and seems to have regarded it as the lawful privilege of government servants and the land-owning classes. His *Artha-śāstra* is full of passages which show that forced labour (*viṣṭi*) was considered a rightful custom.² Even important religious sects like the Buddhists and Jains did not raise their voice against it.

From land grants it would appear that forced labour was considered to be one of the privileges which a king could bestow. A large number of land grants mention clearly that the land was given "with the right to occasional forced labour (*sotpadyamāna-viṣṭi*)".³ Sometimes families of potters and other industrial classes were assigned to the grantees.

When a king visited a village, poor people had to work hard to supply the provisions demanded by him. Even the nobles and rich inhabitants were not exempt. It is recorded in an inscription that the Mahāsāmantādhipati Śāntivarman sent a messenger with the order that "a supply of grass is wanted for our troops and elephants"; and they supplied it.⁴ It appears from the *Harṣa-carita* of Bāṇa that the

¹ Anyatra samghaso ghāsikair busa-dhūli-dhūsarita-ghāsa-jāla-jalakita-jaghanaiś ca purūṇa-paryāṇaika-deśa-dolāyamāna-dātraisca śirṇorṇā-śakala-śiṭhila-malina-mala-kuthaiś ca prabhu-prasādikṛta-pāṭita-pāṭaccara-calaccolaka-dhāribhiś ca dhāvamānair uddhūyamāna-dhūli-pāṭalam. (*Harṣa-carita*, p. 238.)

² Daṇḍa-viṣṭi-karāvādhaiḥ (p. 48); Kośa-viṣṭi-dravya-dhūnya-rasa-vṛddhir bhavatīti. (Ibid.), etc. (*Kau. Artha*.)

³ Sotpadyamā (T*) na-veṣṭikam (*ET*., vol. xi, p. 81);

Sotpadyamāna-viṣṭiḥ (ibid., p. 177);

Sotpadyamāna-viṣṭika (ibid., vol. iv, p. 80, lines 61-2).

⁴ Ibid., vol. xi, p. 6.

inhabitants, whether rich or poor, were very badly off when the king marched through a village against a rival king. He thrillingly describes the feelings and troubles of the villagers by saying that "there poor unattended nobles, overwhelmed with the toil and worry of conveying their provisions upon fainting oxen provided by wretched village householders and obtained with difficulty, themselves grasping their domestic appurtenances, were grumbling as follows: 'Only let this one expedition be gone and done with.' 'Let it go to the bottom of hell.' 'An end to this world of thirst.' 'Good luck to this servitude of ours.' 'Good-bye to this camp, the pinnacle of all unpleasantness.' . . . Here, with cries of 'The labour is ours, but when pay-time comes some other rascals will appear', village servants, set to scare on the feeble oxen tripping at every step, were indiscriminately badgering the whole body of nobles."¹

Besides the landless labourers, there were other classes connected immediately with the land. The *upavāsas* (i.e. temporary inhabitants) in villages were obliged to accompany the village headman (*grāmika*) on his rounds; if they failed to do so, they were fined one and a half *paṇas* for each *yojana*.² They cultivated lands granted them for short periods. They could not be dispossessed at the sowing season.³ The position of *kṣetrikas* and *karṣakas* is not clear. Both words are used

¹ Kvacid asahāyair kṣēsarjita-kugrāma-kuṭumbi-sampādita-sīdat-saurabhya-sāmbala-saṃvāhanāyāsā vegāgata-samyogair svayam grhita-grhōpaskaranair 'iyam ekā kathameid danḍayātrā yātu. Yātu pātāla-talam tṛṣṇā-bhūter abhavanīh. Bhavatu śivam. Svasti sarva-duḥkha-kūṭāya kṛtākāya' iti durvidha-kula-putrakair nindyamānam. (*Harṣa-carita*, p. 236; see English translation, p. 207.)

Kvacit 'kleśo'smākam' phala-kāle'nya eva viṭāḥ samupa-sthāsyanta' iti mukharair pade pade patatām durbala-balivardānām niyuktair khetāne khetā-cetākair khedyamānā-saṃvibhakta-kulaputra-lokam. (*Ibid.*, p. 237, English translation, p. 208.)

² Grāmārthena grāmikam vrajantam upavāsāḥ paryāyeṇānugaccheyur ananugacchantāḥ paṇārdhapaṇikam yojanam dadeyuh. (*Kau. Artha.*, p. 171.)

³ Kṣetrikasyākṣipataḥ kṣetram upavāsasya vā tyajato bijakāle dvādaśapaṇo danḍaḥ, anyatra doṣopanipātāviśahyebhyaḥ. (*Ibid.*)

in the *Artha-sāstra* of Kauṭalya for cultivators.¹ It appears that many persons of the trading class purchased small areas of land in the villages and rented them to *ardha-sītikas* on condition that they would give them half the produce,² a system which has continued down to modern times.³ *Kuṭumbins* seem to have been people belonging to the professional classes, who cultivated land as a subsidiary means of livelihood. Kielhorn understood them to be only serfs.⁴ In reality their main professions were oil-pressing, the manufacture of various articles, washing, etc. At the same time, as a subsidiary profession, they grew vegetables, flowers, fruits, etc. The position of these people in society can be judged from the Kharapatan plates of Raṭṭarāja, wherein he assigned the families of oilmen, gardeners, washermen, etc., to his teacher as retinue.⁵ Nārada defines a *kuṭumbika* as a servant, enjoying the position of housekeeper in a wealthy family.⁶ Some of these professional classes were considered to be impure, as in modern times. As to the *sīra-vāhaka*s of the *Bṛhaspati-smṛti*, they were perhaps people who cultivated

¹ Karṣakasya grāmam abhyupetyākurvato grāma evātyayam haret. Karmākaraṇe karma-vetana-dviguṇam hiraṇyādānam pratyamśa-dviguṇam bhakṣya-peya-dāne ca pravahaneṣu dviguṇam aṁśam dadyāt. (Ibid., p. 173.)

Tasyākaraṇe vā samāharṭṭ-puruṣā grīṣme karṣakāṇām udvāpam kārayeyuh. (Ibid., p. 242.)

Karma-kālānurūpam asambhāṣita-vetanam. Karṣakas sasyānām, gopā-lakas sarpiṣām . . . labheta. (Ibid., p. 183.)

² Āhitasya nagnas tāpanam daṇḍa-preṣaṇam atikramaṇam ca strīṇām mūlya-nāśa-karam. (Ibid., p. 182.)

³ "The people also who engage in this cultivation for a share have in general two or three bigahs, for which they pay rent, and employ their leisure time in cultivating land for their neighbours for one-half of the produce, on which account they are called *adhiyars* (= *ardha-hara*), or half people." (Buchanan's *Account of Dinajpur* (1832), pp. 234-5.)

⁴ *EL.*, vol. iii, No. 44.

⁵ Dārikā kuṭu(mbā)ni ca. Tailika kuṭumvam(mbam) 1, mālākāra kuṭumvam(mbam) 1, Kumbhakāra kuṭumvam(mbam) 1, rajaka-kuṭumvam(mbam) 1 . . . (*EL.*, vol. iii, No. 40.)

⁶ Artheṣv adhikṛto yaḥ syāt kuṭumbasya tathopari | So'pi karmakaro jñeyah sa ca kauṭumbikah smṛtaḥ. (*Nārada-smṛti*, p. 146.)

Karmānta-kṣetra-vaśena vā kuṭumbinām sīmānam sthāpayet. (*Kau. Artha.*, p. 56.)

sīra lands. According to Wilson's Glossary, *sīra* is "a name applied to the lands in a village which are cultivated by the hereditary proprietors or village zamindars themselves as their own especial share, either by their own labourers and at their own cost, or by tenants at will, not being let in lease or farm" (p. 485, s.v. Sir, Seer). Thus, perhaps the *sīra-vāhakas* of the *Brhaspati-smṛti* were tenants-at-will, who cultivated the landholder's own land for a share of the produce. They were entitled to one-third of the produce, if they cultivated the fields at their own expense; otherwise, being furnished with food, clothes and other necessities by the estate-owner, they were allowed to take only one-fifth share of the produce.¹ These *sīra* lands in the time of Kauṭilya were perhaps called *sītā*. When these lands were very extensive a supervisor was appointed called *sītādhyakṣa*. Unfortunately the status and duties of this person have been wholly misinterpreted by some writers. He had to employ slaves, labourers, and prisoners (*daṇḍa-pratikartṛ*) to sow the seed, and to see that "the work of the above men shall not suffer on account of any want of ploughs (*karṣaṇa-yantra*) and other necessary instruments or of bullocks. Nor shall there be any delay in procuring to them the assistance of blacksmiths, carpenters, borers (*medaka*), rope-makers, as well as those who catch snakes, and similar persons".² When the crops were ripe he had to arrange for the reaping and removal.³ Income derived from *sītā* (*sīra*) lands was

¹ Tribhāgaṃ pañca-bhāgaṃ vā grhṇiyāt sīra-vāhakaḥ | Bhaktācchāda-bhṛtaḥ sīrād bhāgaṃ grhṇita pañcamam. Jāta-sasyāt tri-bhāgaṃ tu grhṇiyād athābhṛtaḥ | Bhaktācchāda-bhṛto hy anna-vastra-dānena poṣitaḥ. (*Brhaspati-smṛti*.) (*Yājñavalkya-smṛti*, *Vyavahāra*, prakaraṇa 16, p. 253.)

² Bahu-hala-parikṛṣṭāyām sva-bhūmau dāsa-karmakara-daṇḍa-pratikartṛbhir vāpayet. Karṣaṇa-yantropakaraṇa-balivardaiś caisām asaṅgaṃ kārayet. Kārubhiś ca karmāra-kutṭāka-medaka-rajjuvartaka-sarpagrāhād-ibhiś ca. Teṣāṃ karma-phala-vinipāte tat-phala-hānaṃ daṇḍaḥ. (*Kau. Artha.*, p. 115, English translation, p. 138.)

³ Yathākālāṃ ca sasyādi jātaṃ jātaṃ praveśayet | Na ksetre sthāpayet kiñcīt palālam api paṇḍitaḥ. . . . Khalasya prakaraṇ kuryān maṇḍalānte samāśritān | Anagnikās sodakās ca khale syuḥ parikarmaṇaḥ. (*Kau. Artha.*, p. 118.)

also called *sītā*.¹ The overseer (*sītādhyakṣa*) was allowed 1,000 *paṇas* a month to defray all expenses, as well as to maintain himself.² The *ṣaṇḍas* (watchmen), *vāṭas* (connected with the gardens or the growing of vegetables), *go-pālas* (cowherds), *dāsas* (slaves), and *karma-karas* (labourers), when employed for the cultivation of *sīra* lands were provided with food and clothes, and were paid a nominal sum of one and a quarter *paṇas* a month.³ According to Manu labourers, carpenters and artisans had to work free once a month for the estate-owner (*rājan*).⁴ Owing to this the cultivation of *sīra* lands was done very economically.

Even in those days landowners were tenacious of their rights. Kauṭilya says :—"No ascetic other than a *vāna-prastha* (forest-hermit), no company other than the one of local birth (*sajātādanyas saṅghaḥ*), and no guilds of any kind other than local co-operative guilds (*samutthāyikād anyas samayānubandhaḥ*) shall find entrance into the villages of the kingdom. Nor shall there be in villages buildings (*śālāḥ*) intended for sports and plays. Nor, in view of procuring money, free labour, commodities, grains and liquids in plenty, shall actors, dancers, singers, drummers, buffoons (*vāg-jīvana*) and bards (*kuśīlava*) make any disturbance to the work of the villagers ; for helpless villagers are always dependant and bent upon their fields ".⁵ He adds, further, that

¹ *Sītādhyakṣopaniṭaḥ sasya-varnakas sītā*. (Ibid., p. 93.)

² *Kārtāntika-naimittika-mauhūrtika-paurāṇika-sūta-māgadhaḥ puro-hita-puruṣās sarvādhyakṣās ca sāhasrāḥ*. (Ibid., 247.)

³ *Ṣaṇḍa-vāṭa-gopāla-dāsa-karmakarebhyo yathāpuruṣa-parivāpaṃ bhak-taṃ kuryāt. Sapaḍa-panikam māsaṃ dadyāt. Karmānurūpaṃ kārubhyo bhakta-vetanam*. (Ibid., p. 118.)

⁴ *Kārukān śilpinaś caiva śūdrāś cātmapajīvināḥ* |

Ekaikaṃ kārayet karma māsi māsi mahīpatiḥ. 138. (Manu, vii.)

⁵ *Vānaprasthād anyāḥ pravrajita-bhāvaḥ sajātād anyāḥ saṅghas sāmuthāyikād anyas samayānubandho vā nāsyā janapadam upaniveśeta. Na tatrārāma-vihārārthāḥ śālās syuḥ*.

Nata-nartana-gāyana-vādaka-vāg-jīvana-kuśīlavā vā na karma vighnaṃ kuryuḥ ; nirāśrayatvād grāmāṇāṃ kṣetrābhīratatvāc ca puruṣāṇāṃ, kośa-viṣṭi-dravya-dhānya-rasa-vṛddhir bhavatīti.

(*Kau. Artha.*, p. 48 ; English translation, pp. 51-2.)

“commodities shall never be sold where they are grown or manufactured. When minerals and other commodities are purchased from mines, a fine of 600 *paṇas* shall be imposed. When flowers or fruits are purchased from flower or fruit gardens, a fine of fifty-four *paṇas* shall be imposed. When vegetables, roots, bulbous roots are purchased from vegetable gardens, a fine (of) fifty-one and three-quarter *paṇas* shall be imposed. When any kind of grass or grain is purchased from a field, a fine of fifty-three *paṇas* shall be imposed.”¹

The share of produce, taxes, fines and other dues were actually collected by *sāmantas* (estate-owners) and not by the ‘king’ or ruler of the country (*deśa*), as generally understood hitherto. According to Manu vegetables, fruit, etc., should be supplied to them by the cultivators every day; and artisans, labourers, etc., were to work for them once a month entirely free.² It appears that the number of dues levied gradually increased. According to a Prākṛta grant of the Pallava king Śivaskandavarman these dues were not less than eighteen in number. The economic condition of the village people can be realized from the tradition that milk, grass, firewood, vegetables and so forth had to be furnished gratis by the villagers to royal officers and their servants. With a view to saving a donee from these troublesome dues Śivaskandavarman ordered that “this garden in Chillerkakodumka, which belongs to the Brāhmaṇas, (is to be) free from taxes . . . free from the taking of sweet and sour milk . . . free from troubles about salt and sugar,

¹ Jāti-bhūmiṣu ca paṇyānām avikrayaḥ. Khanibhyo dhātu-panyā dāneṣu ṣaṭchatam atyayaḥ. Puṣpa-phala-vātebhyaḥ puṣpa-phalādāne catuspañcāśat-pano daṇḍaḥ. Śaṇḍebhyaḥ śāka-mūla-kandādāne pādonam dvipañcāśat-pano daṇḍaḥ. Kṣetrebhyas sarva-sasyādāne tripañcāśat-panaḥ. (*Kau. Artha.*, p. 113; English translation, pp. 135-6.)

² Yat kiñcid api varṣasya dāpayet kara-saṃjñitam |

Vyavahāreṇa jīvantam rājā rāṣṭre prthag janam. 136.

Kārukān śilpināś caiva śūdrāś cātmapajivinaḥ |

Ekaikaṃ kārayet karma māsi māsi mahīpatih. 139. (*Manu-smṛti*, vii.)

Kukkuṭa-sūkaram ardham dadyāt. Kṣudra-paśavaḥ ṣaḍ-bhāgam.

Go-mahiśāśvatara-kharoṣṭrāś ca daśa-bhāgam. (*Kau. Artha.*, p. 243.)

free from taxes, forced labour . . . , free from the taking of the oxen in succession, free from the taking of grass and wood, free from the taking of the vegetables and flowers ; with these and other immunities of the eighteen kinds it must be exempted and caused to be exempted by the inhabitants of the province, by the inhabitants of Apitti and by the inhabitants of Chillerkakodumka ".¹

Owing to these impositions the tenants and cultivators must have been nearly as miserable as the landless labourers. There is no doubt, however, that the economic condition of the upper and privileged classes (*sāmāntas*) was quite different. They were the real owners of their estates, and enjoyed many sovereign powers over them. It appears probable that the right of ownership over forests, fisheries and mines also originally belonged to them. The development of such rights may be illustrated by the dues and taxes collected at the present day by estate owners in Oudh from their tenants.²

The abundance of natural products, the scarcity of the

¹ Akara-yollaka-vinesi-khaṭṭāvāsaṃ adudha-dadhi-gaṇaṇaṃ aratṭhasaṃ-vinayikaṃ alonagulacchobhaṃ akaraveṭṭhikomaṇjallaṃ apāraṃ parabalivad-gaṇaṇaṃ atanaṇakattagahaṇaṃ aharitaka-sāka-puphagahaṇaṃ evamādi kehi atthārasa jāti parihārehi. (*ET.*, vol. i, p. 6.)

² The following dues and taxes realized by landowners from their tenants and sub-tenants in Oudh may be cited :—1, Najara daśaharā ; 2, Najara holi ; 3, Najara rānī-sāhibā ; 4, Sara khatiyāvana ; 5, Hathiyāvana ; 6, Ghuḍāvana ; 7, Muṭarāvana ; 8, Latiyāvana ; 9, Najara darvāra ; 10, Candā numāisa ; 11, Rakūma sarakāri ; 12, Sagūna ; 13, Nuksāna rasāni ; 14, Harajānā ; 15, Bheṃṭa ; 16, Takā birū ; 17, Nacāvana ; 18, Carāi ; 19, Cirāi ; 20, Lonā ; 21, Pāmsa ; 22, Khasī kamari ; 23, Carasā ; 24, Caḍhā mandira ; 25, Ugahani cārā ; 26, Ugahani rasa ; 27, Kūta mahuā ; 28, Phasila āma ; 29, Kaṭahala ; 30, Vera ; 31, Ugahani tarakāri ; 32, Kāli mirca, dhaniā, lahasuna, pyāja, etc. ; 33, Tamākhu ; 34, Khaira supāri ; 35, Lakaḍi ; 36, Laḍhiā ; 37, Taṭṭū ; 38, Gaṇjāvana ; 39, Sāla-māla vevāki ; 40, Candā ; 41, Phasai ; 42, Marai ; 43, Salābi ; 44, Āva pāsi ; 45, Tinī ; 46, Jhāu ; 47, Sīṃka ; 48, Bakavata ; 49, Baḍa ; 50, Hakamāla-kānā ; 51, Vyāha ; 52, Muṃha-dikhāi ; 53, Sīṃhāḍā ; 54, Kīkaviṭi ; 55, Cūnā ; 56, Pāna ; 57, Kuṃhāḍā (Baṃhani or Pethā) ; 58, Rātiva ; 59, Kolhū ; 60, Valahari ; 61, Caukidāri ; 62, Maṭṭi ; 63, Remhū ; 64, Śorā ; 65, Lāha ; 66, Caharruma ; 67, Cīthāḍā ; 68, Tāmīracāha ; 69, Donāpatari ; 70,

metals and the causes aforesaid made it impossible for the village people to build stone and brick houses. Thatching grass seems to have been obtainable free by the villagers, and wood was very cheap. The cost of building a cottage in a village may be realized from the fines assessed for damaging a wall. According to Kauṭalya, "causing damage to a wall of another man's house by knocking shall be fined three *panas*; breaking open or demolishing the same shall be fined six *panas*, besides the restoration of the wall."¹

Villagers and townspeople were in constant danger of fire.² All kinds of preventive measures were in force. There was a strong government order that "kindling of fire shall be prohibited during the two middle-most parts of day time, divided into four equal parts during the summer. . . . Masters of houses may carry on cooking operations outside their houses. . . . Those who work by fire (blacksmiths) shall all live together in a single locality. Each house-owner shall

Tāmīna; 71, Haṃḍiyā gagarī; 72, Cumpī; 73, Utarāi; 74, Dūdha; 75, Dahī; 76, Ghī; 77, Ūṇṭa; 78, Dharavānā; 79, Kilika syāhī; 80, Davāi (Śarāba); 81, Camdā aspatāla; 82, Camdā madarasā; 83, Dalaiyā; 84, Jhanā; 85, Tukanī; 86, Vyānā; 87, Jūtā; 88, Muciyāvana; 89, Cīṭṭhī; 90, Gulūi; 91, Nimakarī; Kharī binavala; 92, Simgarī; 93, Raṃgāi; 94, Sūta; 95, Palāṅga; 96, Loharai; 97, Baḍā dina; 98, Camdā kavi; 99, Harī; 100, Khela tamāsā; 101, Dhunakāi; 102, Bhīṭa; 103, Haka uparahatī; 104, Tumandāri; 105, Mūmja patāvaja; 106, Gāṃḍara; 107, Imalī; 108, Khinnī; 109, Kaserū; 110, Jalapāna; 111, Mīṭhāi batāsā; 112, Vayāi (Daṃḍidārī); 113, Bajāi; 114, Mumḍana, chedana, etc.; 115, Ghaṭavāhī; 116, Bāmsavāhī; 117, Amarūda, Nimbu, etc.; 118, Bhasīḍa; 119, Mamākhi or Gomda; 120, Sāmāna tāllukedārī; 121, Thāṭhavāṭa; 122, Ghātā; 123, Kathā; 124, Punni; 125, Mahatī; 126, Mukhiyā grī; 127, Patavāragirī; 128, Bhūsā ughani; 129, Cauki, dāri; 130, Bhujaī; 131, Karabī; 132, Payāla; 133, Najaradastī; 134, Lakathā Bājarā; 135, Kāṃḍi; 136, Machali; 137, Haka mālīkānā; 138, Guḍaiti; 139, Sahanagi; 140, Āphara; 141, Taulāi; 142, Begārī; 143, Begāra hukkāma; etc.

¹ Para-kudyam abhighātēna kṣobhayatas tripaṇo daṇḍaḥ.

Chedana-bhedane śatpaṇaḥ pratikāraś ca.

(*Kau. Artha.*, p. 196; English translation, p. 240.)

² Daivāny aṣṭau mahābhayāni—agnir udakaṃ . . . rakṣāṃsītī.

Tebhyo janapadaṃ rakṣet. (*Kau. Artha.*, p. 207.)

ever be present (at night) at the door of his own house".¹ (*Kau. Artha.*, Eng. trans., pp. 176-7). Besides these measures everyone was obliged to give help when a fire broke out, and the man who set a house or a village on fire was thrown into the same fire.² Villagers were to sleep outside their houses in summer, and to observe all kinds of preventive measures.³ Natural and economic forces were so powerful against the making of stone or brick houses in villages that the idea had seldom struck anyone at that period. Even in modern times in the Bijnor district economic causes, combined with the cheapness of thatch and bamboos, deter the villagers from changing their thatched huts into brick houses. Babur also observed that "in Hindūstān hamlets and villages, towns indeed, are depopulated and set up in a moment! If the people of a large town, one inhabited for years even, flee from it, they do it in such a way that not a sign or trace of them remains in a day or a day and a half. On the other hand, if they fix their eyes on a place in which to settle, they need not dig water-courses or construct dams because their crops are all rain-grown, and as the population of Hindūstān is unlimited, it swarms in. They make a tank or dig a well; they need not build houses or set up walls—*khas*-grass abounds, wood is unlimited, huts are made, and straightway there is a village or a town!"⁴

Further, it appears that the system of drainage in towns and villages was primitive. The sullage water from the houses

¹ Agni-pratikāraṃ ca grīṣme. Madhyamayor ahnaś caturbhāgayoh.

Aṣṭabhāgo'gni-daṇḍaḥ. Bahir adhiśrayaṇaṃ vā kuryuḥ . . .

Agni-jivina ekasthān vāsayet. Sva-grha-pradvāreṣu grha-svāmīno vāsayuḥ. . . . (*Kau. Artha.*, p. 145.)

² Prādiptam anabhidhāvato grhasvāmīno dvādaśa—paṇo daṇḍaḥ. . . . Pramādād dipteṣu catuṣpañcāśat—paṇo daṇḍaḥ. (*Kau. Artha.*, p. 145.)

Prādiptiko'gninā badhyaḥ. (*Ibid.*)

³ Grīṣme bahir adhiśrayaṇaṃ vā kuryuḥ. Daśa-mūli-samgrahaṇā—dhiṣṭhitā vā. Nāgarika-praṇidhāv agni-pratiṣedho vyākhyātaḥ. . . . (*Ibid.*, p. 207.)

⁴ The *Babur-nama* in English (*Memoirs of Babur*) by A. S. Beveridge vol. ii, p. 488.

often flowed into the lanes.¹ Bulls were set free to roam about, as in modern days.² There were no arrangements for lighting the town at night. We have an interesting description of the difficulty and danger of going about to visit friends at night.³ Although watchmen were on guard to protect the inhabitants from thieves,⁴ life seems to have been unsafe for those who had enemies. The popular amusements were gambling, dancing, drinking and resort to brothels. The royal quarter was regarded as particularly dangerous, especially in the early hours of the morning, when courtiers, attendants and prostitutes, often quite drunk, were wont to return to their homes.⁵ Dogs appear to have been employed to guard the shops at night.⁶

The following description by the Chinese traveller gives a fairly good idea of the economic condition of ancient India:—

“The towns and villages have inner gates; the walls are wide and high; the streets and lanes are tortuous, and the roads winding. The thoroughfares are dirty and the stalls arranged on both sides of the road with appropriate signs. Butchers, fishers, dancers, executioners and scavengers, and so on, have their abodes without the city. In coming and going these persons are bound to keep on the left side of the road till they arrive at their homes. Their houses are

¹ *Āyāmi taṇḍulodaka-pravāhā rathyā. Loha-kaṭāha-parivartana-kṛṣṇa-śārā-kṛta-viśeṣakeva yuvaty adhikatarāṃ śobhate bhūmiḥ. (Mṛcchakaṭīka, p. 12.)*

² *Nagara-catvara-vṛṣabha iva romanthāyamānas tiṣṭhāmi. (Ibid., p. 19.)*

³ *Bhāva bhāva baliyasi khalv andhakāre māsa-rāśi-praviṣṭeva masi-guṭikā dr̥ṣyamānaiva pranaṣṭā vasantasenā. (Ibid., p. 36.)*

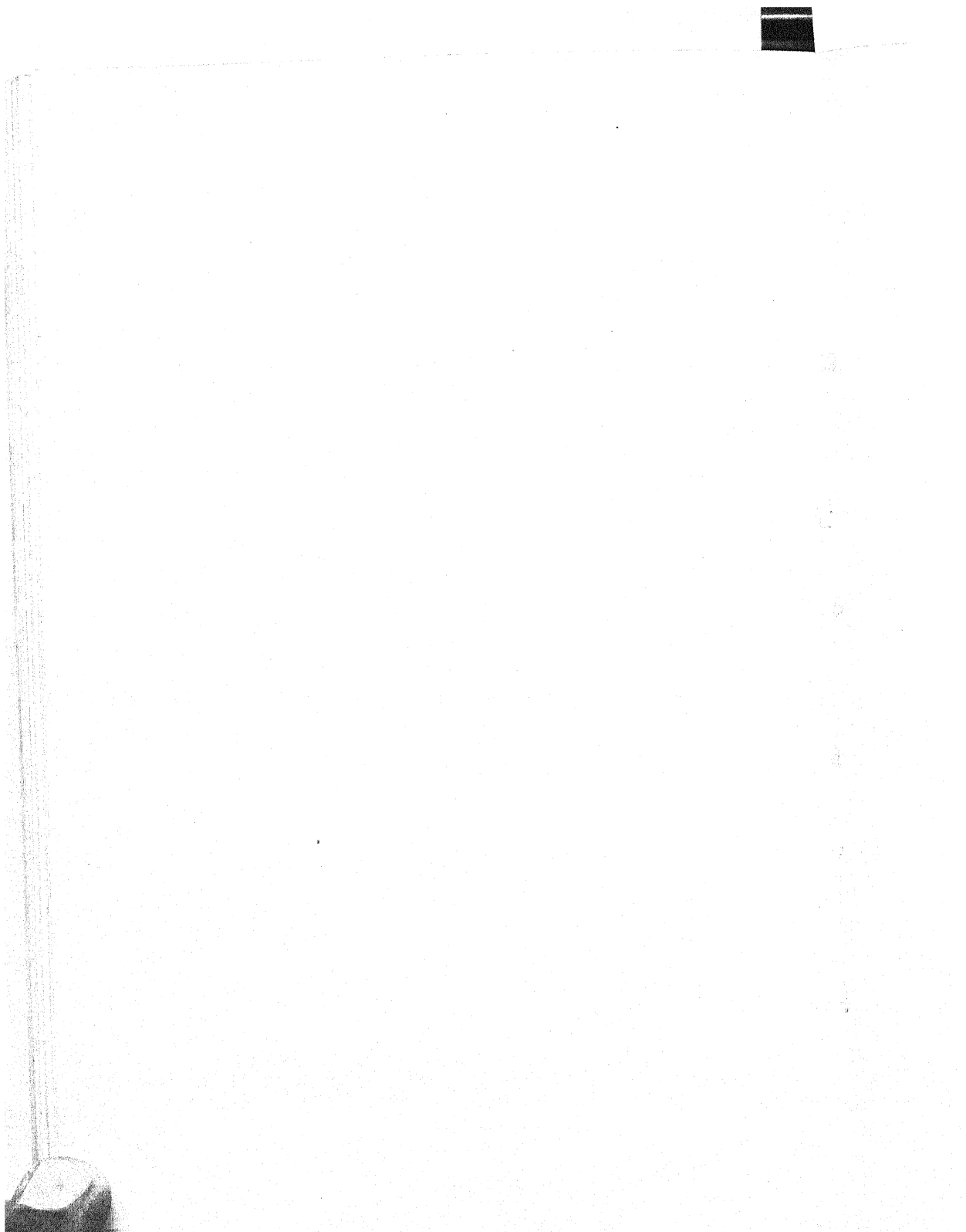
Vitaḥ. Aho balavān andhakāraḥ. Tathā hi: Āloka-viśālā me sahasā timira-praveśa-vicchinā | Unmilitāpi dr̥ṣṭir nimilitavāndhakāreṇa. (Ibid., p. 36.)

⁴ *Aye pada śabda iva mā nāma rakṣiṇaḥ. (Ibid., p. 105.)*

⁵ *Bho na gamiṣyāmy anyāḥ ko'pi prayujyatām. . . . Anyac caivāsyāṃ pradoṣa-velāyām iha rājamārge gaṇikā-viṭās cetās ca rāja-vallabhāḥ puruṣāḥ saṃcaranti. Tasman maṇḍuka-lubdhasyeva kāla-sarpasya mūṣika ivābhīmukhāpatito vadhya idāniṃ bhaviṣyāmi. . . . (Ibid., p. 25.)*

⁶ *Bho vayasya āpaṇāntara-rathyā-vibhāgeṣu sukhaṃ kukkurā api suptāḥ. (Ibid., p. 95.)*

surrounded by low walls, and form the suburbs. The earth being soft and muddy, the walls of the towns are mostly built of brick or tiles. The towers on the walls are constructed of wood or bamboo ; the houses have balconies and belvederes, which are made of wood, with a coating of lime and mortar, and covered with tiles. The different buildings have the same form as those in China : bushes or dry branches, or tiles, or boards are used for covering them. The walls are covered with lime and mud, mixed with cow's dung for purity." (Beal, *Si-yu-ki*, vol. i, pp. 73-4.)



APPENDIX A

The Mūlyādhyāya-pariśiṣṭa (MS.)

Atha mūlyādhyāya-pariśiṣṭam. Dvātrimśat-panikā gāvaś catuḥ-kārṣāpaṇo varah. Vṛṣe ṣaṭ kārṣāpanakā aṣṭāv anaḍuhi smṛtāḥ. Daśa kārṣāpaṇo dhenor aśve pañca-daśaiva tu. Hirāṇye kārṣāpanakāḥ paṇā nava tathādhikāḥ. Vastre kārṣāpaṇaś chāge'stau paṇa dvādaśāvike. Vṛṣalyām atha pañcāśan mūlyam kārṣāpanāḥ smṛtāḥ. Niṣkeyam pañcāśad eva syād gaje pañca-śatāni tu. Pañca kārṣāpanā proktā dolāyām ṣaḍ rathe tathā. Gr̥he'stau kārṣāpanakās tāmre kārṣāpanāḥ smṛtāḥ. (tāmre karṣe paṇāḥ smṛtāḥ). Tāmre karṣe'pi ca paṇa iti mūlya prakalpanā. Adhikaṃ kalpayen mūlyam no nyūnaṃ vittānusārataḥ iti mūlyādhyāyah iti dakṣiṇā.

Commentary No. 1 begins :—

Viśayaka avaśyādāne mukhyā sambhave ya . . . pañca-pakṣāḥ.

Commentary No. 2 begins :—

Śrī-gopālaṃ gopa-gopī-parītaṃ, natvā samyak śrī-gurūn jīva-devān. Mūlyādhyāye bhāṣyam etad vidhatte gopāla śrī-yājñikānāṃ hitārtham.

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